



October 24, 2016

Ms. Michelle Ramirez  
Office of Environmental Health Hazard Assessment  
P.O. Box 4010, MS-12B  
Sacramento, CA 95812-4010

**Subject: Comments of the Asphalt Roofing Environmental Council on the Prioritization of Asphalt and Asphalt Emissions Associated with Roofing for Review under Proposition 65**

Dear Ms. Ramirez:

In accordance with the notice published by the Office of Environmental Health Hazard Assessment [OEHHA 2016a], the Asphalt Roofing Environmental Council (AREC) – a partnership consisting of the Asphalt Institute (AI),\* the Asphalt Roofing Manufacturers Association (ARMA)<sup>†</sup> and the National Roofing Contractors Association (NRCA)<sup>‡</sup> – welcomes the opportunity to comment on the prioritization of Asphalt and Asphalt Emissions Associated with Roofing under Proposition 65. As explained in greater detail below, AREC believes that asphalts used in roofing and their emissions should be assigned a “low” priority for the following reasons:

1. Roofing asphalts and their emissions contain a number of polynuclear aromatic compounds (PACs) that are designated as Proposition 65 carcinogens. Businesses are required to provide warnings if roofing asphalt products can expose Californians to these already-listed compounds. Adding roofing asphalts and their emissions to the Proposition 65 list, assuming such an action is warranted, would not expand the scope of the existing obligations of businesses to provide cancer warnings based on listed PACs. Nor would it result in clearer or more informative warnings.

---

\* The Asphalt Institute is the international trade association of petroleum asphalt producers, manufacturers and affiliated businesses. Through education, engineering, technical development, environmental stewardship and marketing leadership, the Asphalt Institute promotes the safe use, benefits and quality performance of petroleum asphalts in a unified voice for our membership.

<sup>†</sup> ARMA is the trade association representing North American asphalt roofing manufacturing companies and their raw material suppliers. ARMA develops information and conducts research and development on asphalt roofing materials and practices; represents the industry in building code, standard product specification and regulatory matters; and serves as a voice for the industry in promoting its products and addressing other matters of common concern.

<sup>‡</sup> NRCA is an association of roofing, roof deck, and waterproofing contractors; industry-related associate members, including manufacturers, distributors, architects, consultants, engineers, city, state, and government agencies; and international members. NRCA represents roofing professionals before the U.S. Congress, the federal government, and other governmental, technical and scientific bodies; and develops and sponsors research, educational and technical support programs.

2. The public health impact of listing would be limited at best. Hot-application operations represent by far the most significant source of exposure to potentially carcinogenic constituents of asphalt in roofing, but these operations represent a very small and declining part of the roofing industry. A recently published risk assessment finds that cancer risks in these operations are below levels of regulatory concern. The industry has, nevertheless, taken concrete steps to reduce temperatures, reducing exposures and risks still further. With respect to other asphalt exposures in the roofing industry, the available evidence indicates that exposures and risks are even lower – negligible (at most) in the case of the dominant roofing product, asphalt shingles.

Because of the complex and variable chemical composition of asphalt and its emissions associated with roofing, the wide variability of the settings in which exposures may occur, and the significant data gaps that remain, developing a scientifically supportable cancer hazard evaluation for all products and exposures would pose unusually difficult challenges. Even if such an effort is undertaken, there is no reason to expect that it would significantly expand or improve the cancer warnings already required based on the presence of PACs in roofing asphalts and their emissions.

### **Background**

Asphalt is the residual product from distillation of crude oil in petroleum refining [IARC 2013; AI 2015]. It is produced to meet a variety of specifications based on the physical properties needed for specific end uses by refining, by blending various refinery streams or by incorporating polymers or other additives. The properties and chemical make-up of asphalt depend mainly on the crude oil used in its manufacture, and to a lesser extent on the refining processes, blending streams, and additives used to meet end-use specifications [AI 2015, pp. 8-13].

IARC defines five classes of asphalt used in the U.S. "Straight run" asphalt (Chemical Abstract Service (CAS) No. 8052-42-4) is the term used for the residuum of atmospheric or vacuum distillation of crude oil [IARC 2013, pp. 45-50]. Asphalt can be further processed by blowing air through it at elevated temperatures (air rectification, or oxidization) to alter its physical properties for specific commercial applications (CAS No. 64742-93-4). In addition to straight run and oxidized asphalt, IARC defines three other classes of asphalt: (i) cutback bitumens, which are produced by adding an agent to bitumens for the purpose of reducing ("cutting back") viscosity, rendering the products more fluid for ease of handling;\* (ii) bitumen emulsions, which are fine dispersions of bitumen droplets in water; and (iii) modified bitumens, which contain special additives (typically 3–15% by weight) such as polymers, crumb rubber, elastomers, sulfur, polyphosphoric acid and other products used to modify their properties [IARC 2013, pp. 49-50].<sup>†</sup>

---

\* As discussed below, a Proposition 65 listing based on an earlier IARC Monograph may apply to cutback asphalts.

<sup>†</sup> IARC [2013] also defines another class of asphalt, thermally-cracked bitumens [Class 6], which are not produced in the U.S.

The chemical composition of asphalt and asphalt emissions are described by IARC [2013, pp. 40-43] and in a recent AREC-sponsored risk assessment published by Dr. Lorenz Rhomberg and colleagues at Gradient [Rhomberg 2015], which is not referenced in OEHHA’s preliminary toxicological evaluation [OEHHA 2016b]. IARC defines asphalt emissions as “complex mixture of aerosols, vapours and gases” resulting from the heating of asphalt [IARC 2013, p. 39]. Both IARC [2013, pp. 50-52] and Rhomberg [2015] discuss at length the extensive data showing that heating temperature significantly affects both the quantity and chemical composition of asphalt emissions. In addition to temperature, crude source, and manufacturing methods, other factors can influence the magnitude and composition of asphalt emissions, including application practices, the physical properties of the asphalt (e.g., softening point, which affects temperature susceptibility), distance from the emission source and ambient weather conditions [Clark 2011].

A review of the use of asphalt in roofing reveals that a broad range of asphalts and application practices are used [ARMA 2011, pp. 1, 7-12]. Oxidized asphalts are used to make roofing shingles, roofing membranes and built-up roofing systems. Straight-run and air rectified (lightly oxidized) asphalts are used to make polymer modified asphalt membranes as well as underlayments and roof coatings and cements, which may be cutbacks or emulsions. These products can be applied in a variety of ways that dramatically affect the potential for emissions. The overwhelming majority (94 percent) of North American roofing asphalt production is applied without heating. Of the remaining production, products applied using hot liquid asphalt, which were prominent for much of the 20<sup>th</sup> Century, have seen a sharp decline over the past 20 years. During the same period, polymer modified bitumen products, applied with adhesives at ambient temperatures or using torches or hot air welders to soften the material sufficiently to ensure good adhesion to the substrate, have steadily increased their share of the market.

### **1. Businesses Are Already Obligated to Provide Cancer Warnings to Californians Exposed to Constituents of Roofing Asphalts and Their Emissions.**

As discussed by IARC [2013, pp. 40-43], Rhomberg [2015] and AI [2015, pp. 14-15], asphalt is a complex mixture of organic material, mostly high molecular weight hydrocarbons, with smaller amounts of sulfur, oxygen, nitrogen and trace metals, such as vanadium, nickel, iron and copper. The molecules present in bitumens are combinations of alkanes, cycloalkanes, aromatics and heteromolecules containing sulfur, oxygen, nitrogen and metals. Crude oils contain low levels of PACs, a number of which are considered to be carcinogenic. While refinery distillation processes remove the majority of these compounds, residues of 2- to 7-ring PACs have been found in asphalt at ppm levels due to incomplete separation during distillation. Oxidation further reduces, but does not eliminate, PAC concentrations in asphalt [AI 2015, p. 14; Boillet 2013; Trumbore 2011].

When heated, asphalt emits a complex mixture of thousands of organic compounds as vapors and aerosols. As discussed by Kriech [2007], approximately 70% of typical U.S. asphalt emissions consists of saturated, simple, straight chain-hydrocarbons (alkanes), monocycloparaffins, alkylbenzenes and branched chain aliphatics. The other 30% of the fume is often a mixture of PACs, over 90% of which are alkylated two- and three-ring molecules. Most of these aromatics are fused carbon-ring structures (PAHs), but some of them contain nitrogen, oxygen and sulfur atoms inside the ring structures (heterocycles), which can vary, based on differences in the crude source. Within the aromatic fraction of bitumen fumes, trace levels of potentially cancer causing PACs have been detected. As compared to solid asphalt, asphalt emissions contain higher concentrations of 2-ring PACs and lower levels of PACs with 5 or more rings [IARC 2013, p. 43].

Literature reviews by Rhomberg [2015] and IARC [2013, pp. 40-42] reveal that a number of PACs that are listed as Proposition 65 carcinogens have been identified in asphalt and asphalt emissions, including:

- Benz[a]anthracene
- Benzo[a]pyrene
- Benzo[b]fluoranthene
- Benzo[k]fluoranthene
- Carbazole
- Chrysene
- Dibenz[a,h]acridine
- Dibenz[a,h]anthracene
- Dibenz[a,j]acridine
- Dibenzo[a,i]pyrene
- Dibenzo[a,l]pyrene
- 7H-dibenzo[c,g]carbazole
- Indeno[1,2,3-cd]pyrene
- 5-Methylchrysene
- Naphthalene\*

Consequently, in any setting (occupational, environmental, consumer product) where the manufacture, processing or use of asphalt in roofing can expose Californians to the listed carcinogenic PACs in asphalt or its emissions, Proposition 65 requires businesses to provide cancer warnings to those who may be exposed. In fact, enforcement actions based on failure to warn about exposure to Proposition 65 carcinogens in roofing asphalts and their emissions have been brought, both by the

---

\* In addition, other Proposition 65 carcinogens, such as benzene, ethylbenzene and styrene, are sometimes found in asphalt emissions [IARC 2013, pp. 41-42].

State of California and by private plaintiffs, and have resulted in consent judgments (copies attached) requiring the defendants to provide the following warning to roofers working with asphalt products:

Asphalt, coal tar, and other roofing or waterproofing materials contain chemicals that are known to the State of California to cause cancer and/or reproductive hazards. Exposure to these chemicals occurs during the installation, repair or removal of roofing and waterproofing materials containing asphalt, coal tar or other bituminous binders and other types of roofing or waterproofing materials. Exposures may occur not only from the roofing or waterproofing materials you are working with but also from the solvents, mastics, cements, sealants, caulking compounds and other products and equipment that may be used in the operation. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

The language of this warning, which was approved by both the Attorney General of California and the California Superior Court for Alameda County, makes it clear that Proposition 65 imposes a duty to warn wherever Californians can be exposed to the listed constituents of roofing asphalts and their emissions.

There is no reason to expect, should roofing asphalt and its emissions be added to the Proposition 65 carcinogen list, that the existing obligation to provide cancer warnings would be expanded in any significant way. Nor would listing roofing asphalt and its emissions as Proposition 65 carcinogens improve the clarity or informative value of cancer warnings currently required for these materials. Under recent revisions to the “safe harbor” provisions in Article 6 of OEHHA’s regulations implementing Proposition 65’s warning requirement, even if asphalt and its emissions were listed as carcinogens, businesses would not be required to specifically identify these materials in the language of their warnings [OEHHA 2016c, pp. 112-118, 131; OEHHA 2016d, pp. 6-7, 9-10]. In addition, OEHHA earlier this year finalized a companion rulemaking establishing the framework for an OEHHA website to provide supplemental information to the public about warnings they receive under Proposition 65 [OEHHA 2016e]. Implementing this website, which must be referenced in “safe harbor” warnings provided under Proposition 65,<sup>\*</sup> is a much more effective way to enhance the clarity and informative value of warnings.

---

<sup>\*</sup> See OEHHA [2016c, p. 114; and 2016d, pp. 6-7, 9-10].

## 2. **The Public Health Benefit of Listing Roofing Asphalts and their Emissions Would Be Limited at Most.**

Even if Proposition 65 cancer warnings were not already required where Californians can be exposed to already-listed PACs in roofing asphalts and their emissions, separately listing these materials would have, at most, a limited public health benefit.

**a. Occupational Exposures in Hot Asphalt Roofing:** Worker exposures to asphalt emissions in these operations are, by far, the most significant source of exposure to potentially carcinogenic constituents of asphalt in roofing [ARMA 2011, pp. 1-2, 20-32]. A risk assessment published by Rhomberg [2015] concludes that lifetime cancer risks at current exposures for a 45-year worklife fall within a range typically deemed acceptable within regulatory frameworks. In addition, the extent of California worker exposure associated with hot asphalt roofing is limited. Approximately 12,000 California roofers work primarily in the low-slope sector of the roofing market, where hot-applied asphalt roofing systems may be installed,\* and these roofers spend, on average, about 7.5% of their working hours doing hot-asphalt jobs.†

The fact that the population of interest is relatively small may be a consideration for priority-setting, but it certainly does not mean that it is unnecessary to protect the health of these workers. Because of the strong scientific evidence showing temperature reduction can significantly lower asphalt emissions and worker exposures, ARMA and NRCA recently proposed revisions to the ASTM D312 standard – the product specification used in the overwhelming majority of hot asphalt roofing jobs – to lower kettle and application temperatures. The proposed revisions were approved on February 1, 2015 and published a month later as ASTM D312-15 [ASTM 2015]. ARMA and NRCA recently updated their recommended practices for controlling asphalt exposures in hot roofing work, originally developed in partnership with the National Institute for Occupational Safety and Health (NIOSH) [NIOSH 2003a,b and 2007], to incorporate the new temperature management guidelines [ARMA 2016].

Roofer asphalt exposures during hot asphalt work fall within the IARC Group 2A classification (probably carcinogenic to humans) for “occupational exposures to oxidized bitumens and their emissions during roofing” [IARC 2013, p. 203]. As a result, the OSHA Hazard Communication Standard requires that cancer warnings about these exposures be provided to California (and all U.S.) roofers [OSHA 2012, pp. 17718-17720]. Under the recent revisions to the Proposition 65 warning regulations, cancer warnings

---

\* In the absence of state-specific estimates, an estimate of California roofers engaged on low-slope roofing can be derived by applying Census Bureau data on California’s share of the U.S. population (12.2%) to the national estimate of 99,000 [ARMA 2011, p. 12], resulting in about 12,000 low-slope roofers. (Census Bureau estimates of U.S. and California population can be found at <http://www.census.gov/popest/data/index.html>.)

† Estimate based on data published by ARMA [2011, pp. 61-63], updated to reflect the most recent market survey data available [NRCA 2016]. The estimate includes not only hot-applied BURA but also estimates of the percentage of styrene-butadiene-styrene (SBS) polymer modified bitumen roofs that are applied using hot liquid asphalt published by ARMA [2011, p. 62].

for occupational exposures to listed chemicals that are being provided pursuant to federal or state hazard communication standards are deemed to comply with Proposition 65 [OEHHA 2016c, pp. 130-131; OEHHA 2016d, p. 10]. The upshot is that, even if cancer warnings were not required on the basis of PACs currently listed under Proposition 65, cancer warnings based in the IARC finding are already required by the OSHA Hazard Communication Standard – and incorporated into Proposition 65 – for occupational exposures to oxidized asphalt and its emissions in hot asphalt roofing work.

**b. Occupational Exposures Associated with Other Asphalt Roofing Products.** About 95% of U.S. asphalt roofing production involves materials and systems that are not applied with hot liquid asphalt, but instead are applied at ambient temperatures or using torches or hot air welders to soften the material sufficiently to ensure good adhesion to the substrate [ARMA 2011, pp. 1-2]. As discussed below, the available evidence indicates that exposures and potential cancer risks (if any) associated with these products are much lower than in hot-roofing operations.

Products Applied at Ambient Temperatures without Heating: This group of products – which includes asphalt shingles, self-adhering and cold-applied polymer modified asphalt products, cold-process BUR, underlayments – accounts for 94% of U.S. asphalt roofing production [ARMA 2011, pp. 1, 7]. There is no evidence that these products are associated with any more than negligible exposures to constituents of asphalt [ARMA 2011, pp. 8, 26-27]. IARC finds that solid asphalt is non-volatile at ambient temperatures [IARC 2013, p. 39]. Skin contact with shingles and other solid asphalt roofing products during installation and removal is limited, particularly if workers wear gloves in accordance with industry recommended practices. Even in the absence of gloves, available studies on the percutaneous absorption of PACs from highly viscous petroleum materials indicate that incidental skin contact with solid bitumen shingles is not likely to result in significant absorption of PACs or other asphalt constituents [ARMA 2011, p. 26].

Torch-Applied Polymer Modified Products: As summarized by ARMA [2011, pp. 9, 27-29], the available U.S. data indicate that inhalation exposures to fumes are typically non-detectable and in all cases well below the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) (0.5 mg/m<sup>3</sup>, benzene-soluble inhalable particulate) (ACGIH 2001). Although the TLV is intended to protect workers against mild irritation of the eyes and upper respiratory tract (i.e., the nose and throat), the Rhomberg risk assessment finds that the TLV is “adequately protective” against significant inhalation and dermal cancer risks as well [Rhomberg 2015]. There is no evidence of dermal absorption of asphalt or its constituents during installation, either due to skin deposition of condensed emissions or due to the handling of solid polymer modified asphalt sheets, which is expected to be comparable to that of other solid asphalt roofing products such as shingles [ARMA 2011, p. 32].

Cutback and Emulsified Coatings and Sealants: NIOSH has found that these products do not emit asphalt fumes or vapors [NIOSH 2000, pp. 10-11]. While dermal contact does occur, there is no evidence that absorption rates would exceed those of condensed fumes during hot asphalt roofing

operations, which, per the findings of the Rhomberg risk assessment, pose estimated worker cancer risks that are below levels of regulatory concern [Rhomberg 2015].\*

**Tear-Offs:** There is no scientific evidence that inhaling asphalt particulates poses a cancer hazard. Available data for low-slope tear-offs indicate that inhalation exposures to asphalt particulates average about half the TLV for fumes [ARMA 2011, p. 34]. In the case of steep-slope removals such as shingles, exposures are expected to be much lower because of the use of manual prying or slicing tools on these jobs [ARMA 2011, p. 26]. A recent small-scale industry study found that asphalt particulate exposures on shingle removal jobs were indistinguishable from background [Hill 2015]. With respect to dermal exposures, the Rhomberg risk assessment finds that the skin cancer risk from asphalt particulates during low-slope tear-offs to be well below levels of regulatory concern [Rhomberg 2015]. Dermal exposures in steep-slope tear-offs are likely much lower.

**c. Occupational Exposure in Asphalt Roofing Manufacturing Plants:** The potentially exposed population in California is less than 500 plant workers.<sup>†</sup> As a result of product innovation, improved process emission controls and the widespread use of closed systems, fume exposures in manufacturing have fallen dramatically over the last 30 years and are typically below the TLV [ARMA 2011, pp. 2, 21-25]. A recent study of Owens Corning asphalt roofing manufacturing and asphalt production facilities found that all measured worker exposures to asphalt fumes were well below the TLV [Trumbore 2015]. This study also found that measures of exposure to a set of 4- to 6-ring PACs that have been strongly correlated with carcinogenic activity in animal studies were significantly below those of hot asphalt roofing operations, and comparable to, or lower than, those found in hot-mix asphalt paving operations for which IARC found the human and animal data to be inadequate.<sup>‡</sup>

**d. Non-Occupational Exposures:** IARC finds that human exposures to asphalts and their emissions comes “almost exclusively” from occupational exposure during the manufacture and use of

---

\* The current Proposition 65 list for carcinogens includes a substance called “bitumens, extracts of steam-refined and air refined,” which was added in 1990 based on the previous IARC Monograph for bitumens [IARC 1985, 1987]. There is some evidence that IARC intended this material to include asphalt cutbacks. While there are significant indications that IARC intended the current Monograph to supersede the previous reviews [IARC 2013, pp. 33-35], a requirement to warn about exposures to “bitumen extracts” continues in California so long as this material remains on the Proposition 65 list.

<sup>†</sup> Estimate represents 12.2% of the national estimate of 3,000-4,000 roofing plant workers [ARMA 2011, p. 12], based on California’s share of the total U.S. population, per Section 2.a, above.

<sup>‡</sup> OEHHA’s preliminary toxicological evaluation [OEHHA 2016b] cites a “Brief Report” finding increased pharyngeal/tonsillar cancer mortality in a cohort of workers employed in a plant producing asbestos-containing asphalt roofing rolls [Zanardi 2015]. The report indicates that the increased cancer mortality occurred only in workers exposed to asbestos. As for the possible role of asphalt fume exposures, the authors acknowledge that the study was compromised by the failure to control for tobacco use and low socioeconomic status, the absence of data showing dose-response, small study size and relatively short follow-up. Thus, this study adds nothing of value to the existing human data on manufacturing plant workers, which IARC found to be “inconsistent” and “uninformative” [IARC 2013, p. 200].

the products [IARC 2013, p. 36]. In most cases, including building occupants near hot asphalt roofing work, and consumer “do-it-yourselfers” installing unheated asphalt roofing materials, any exposure will be brief in duration, typically recurring no more than a few times in a lifetime. In all cases, exposures and risks are expected to be far below those of workers discussed in Sections 2.a and 2.b, above.

### **Discussion and Conclusions**

As already observed, the IARC Group 2A classification applies to roofer exposures to asphalt fumes and vapors in hot asphalt roofing operations, but these operations represent only a small part of the U.S. asphalt roofing industry. Significantly, IARC did not reach conclusions on carcinogenicity evaluations for several other types of asphalt exposure that may be found in the roofing industry, including straight run asphalts (class 1) used in polymer modified asphalt roofing membranes;\* cutback, emulsified and polymer modified asphalts (classes 3, 4 & 5); occupational exposures to asphalts (any class) and their emissions in roofing manufacturing facilities; and non-occupational exposures to asphalts (any class) and their emissions.

Although the Monograph does not explicitly address the reasons for these gaps in the evaluation of asphalt exposures in roofing, it is not unreasonable to infer that the IARC Working Group concluded that there are insufficient scientific data to form a sound evaluation of these exposures. As discussed below, the same limitations would create significant hurdles in any similar effort that might be undertaken by OEHHA or the CIC. We would like to draw attention to three uncertainties of special note.

First, IARC found that the available data “strongly suggest that temperature plays an important role in determining the degree of exposure and also in determining the carcinogenic potential” of asphalt emissions, and remarked that evaluating exposures at different temperatures poses “a significant challenge” because of the variable physiochemical properties of different types of asphalt [IARC 2013, pp. 36]. As discussed above, exposures in the asphalt roofing industry involve a wide variety of asphalt materials and application methods (especially temperatures) that illustrate the challenge IARC cites.

Second, as observed by Rhomberg [2015], evaluation of PAC mixtures is complicated by the large suite of compounds known to be present, the relative lack of hazard information and the uncertainties with extrapolating data from individual components to whole mixtures, particularly in light of the possibility of non-additive interactions that enhance or inhibit effects. In the specific case of asphalt emissions, the data strongly suggest that the presence of individual carcinogenic PACs does not provide a reliable

---

\* Although IARC classified “occupational exposures to straight-run bitumens and their emissions during road paving,” it did not reach a conclusion about exposures to straight run asphalts (class 1) and their emissions during roofing, or during roofing manufacturing. IARC’s Group 2A finding for roofing is limited to oxidized bitumens (class 2) and their emissions.

marker for the carcinogenic potential observed in animal studies [Niemeier 1988; Sivak 1997; Clark 2011; Freeman 2011]. Instead, as discussed by several researchers [Clark 2011; Trumbore 2011; Rhomberg 2015], tumor incidence associated with hot asphalt roofing emissions correlates with a broader class of 4- to 6-ring PACs measured by the fluorescence assay developed by Heritage Research [Osborne 2001]. With two exceptions, significant data on the 4- to 6-ring PAC profiles of the various types of potential asphalt exposures in the roofing are not available.\* In addition, as observed by Freeman [2011], the concentrations of measured PACs in the underlying studies were very low, and it is possible that other PACs, which were not measured, contributed to the biological activity observed.

Third, evaluation of the carcinogenicity of solid asphalt is subject to a number of key uncertainties. IARC finds only limited evidence of carcinogenicity in animals and humans for oxidized asphalts [IARC 2013, p. 203].<sup>†</sup> Under Proposition 65, the IARC determination is inadequate to justify listing under the Labor Code and Authoritative Body listing mechanisms [OEHHA 2013]. Even if CIC and OEHHA decide to evaluate roofing asphalt under the “State’s Qualified Experts” (SQE) listing mechanism, IARC expresses significant reservations about studies of whole asphalts dissolved in solvents, citing the variable solubility of the individual constituents of asphalt, differences in the extraction properties of the solvents used in these studies, and the likelihood that solvents alter dermal penetration characteristics, potentially influencing the carcinogenic outcome [IARC 2013, p. 35].

**In conclusion, roofing asphalts and their emissions contain a number of PACs that are designated as Proposition 65 carcinogens, and warnings are required where these products can expose Californians to these already-listed compounds. The available information indicates that asphalt exposures and cancer risks in the roofing industry are below levels of regulatory concern. Developing a sound and comprehensive evaluation of the wide variety of asphalt products and application practices in roofing would present unusually difficult challenges. In the end, even if this undertaking resulted in the listing of some or all exposures to roofing asphalts and their emissions, that decision would have a limited public health impact, would not expand the scope of the existing obligations of businesses to provide cancer warnings, and would not result in clearer or more informative warnings. For these reasons, the CIC should assign a low priority to roofing asphalts and their emissions.**

---

\* The two exceptions relate to hot asphalt roofing, which IARC classified in Group 2A, and exposures in asphalt roofing manufacturing plants, where the compositional data suggest that carcinogenic potential is comparable to that of hot-mix paving, for which data in both humans and animals do not demonstrate carcinogenicity. See Section 2.c, above.

<sup>†</sup> IARC found the animal data “inadequate” for straight-run asphalts, which are used in a number of asphalt roofing products as noted in the Background section above.



---

**ASPHALT ROOFING ENVIRONMENTAL COUNCIL (AREC)**

Signature Page:

**For the Asphalt Institute (AI)**

A handwritten signature in black ink, appearing to read "Paul Sohi".

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Paul Sohi  
Typed Name/Position

\_\_\_\_\_  
10-24-2016  
Date of Signature

**For Asphalt Roofing Manufacturers Association (ARMA)**

A handwritten signature in black ink, appearing to read "Reed Hitchcock".

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Reed Hitchcock/Executive VP  
Typed Name/Position

\_\_\_\_\_  
10-24-2016  
Date of Signature

**For National Roofing Contractor Association (NRCA)**

A handwritten signature in black ink, appearing to read "Thomas R. Shanahan".

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thomas R. Shanahan VP  
Typed Name/Position

\_\_\_\_\_  
10-24-2016  
Date of Signature

**Attachment I: Attorney General Consent Judgement, November 12, 2003**

**Attachment II: Consumer Advocacy Group Consent Judgement, December 2, 2003**

## References

- ACGIH 2001. American Conference of Governmental Industrial Hygienists, Documentation for asphalt (bitumen) fumes. In: Documentation of the threshold limit values and biological exposure indices. 7th ed. Cincinnati, OH; 2001. 22 pp. Available at <http://www.acgih.org/forms/store/ProductFormPublic/asphalt-fumes-tlv-r-chemical-substances-7th-edition-documentation>.
- AI 2015. Asphalt Institute and Eurobitume, "The Bitumen Industry - A Global Perspective." 3rd ed., 2015. Available at [http://www.asphaltinstitute.org/wp-content/uploads/IS230\\_3rdedition.pdf](http://www.asphaltinstitute.org/wp-content/uploads/IS230_3rdedition.pdf).
- ARMA 2011. Asphalt Roofing Manufacturers Association (ARMA, Washington, DC), Bitumen Waterproofing Association (BWA, Nottingham UK), National Roofing Contractors Association (NRCA, Rosemont, IL), Roof Coatings Manufacturers Association (RCMA, Washington, DC). "The Bitumen Roofing Industry – a global perspective: production, use, properties, specifications and occupational exposure." 2nd ed., 2011. Available at [http://www.asphaltroofing.org/sites/default/files/The\\_Bitumen\\_Roofing\\_Industry\\_-\\_A\\_Global\\_Perspective.pdf](http://www.asphaltroofing.org/sites/default/files/The_Bitumen_Roofing_Industry_-_A_Global_Perspective.pdf).
- ARMA 2016. Asphalt Roofing Manufacturers Association (ARMA, Washington, DC) and National Roofing Contractors Association (NRCA, Rosemont, IL), Recommended Practices for Controlling Asphalt Fume Exposures during Hot Asphalt Roofing Jobs. May 2016. Available at <http://www.asphaltroofing.org/sites/default/files/ARMA-NRCA%20Guidance%20-%20Hot%20Asphalt%20Fumes.pdf>.
- ASTM 2015. ASTM D312 / D312M-15, "Standard Specification for Asphalt Used in Roofing." ASTM International, West Conshohocken, PA, 2015, available at [www.astm.org](http://www.astm.org).
- Boillet 2013. Bolliet C, Juery C, Thiebaut B. Impact of oxidation process on polycyclic aromatic hydrocarbon (PAH) content in bitumen. J Occup Environ Hyg 2013;10:435-445. PMID: [23767962](https://pubmed.ncbi.nlm.nih.gov/23767962/); DOI: [10.1080/15459624.2013.801820](https://doi.org/10.1080/15459624.2013.801820).
- Clark 2011. Clark CR, Burnett DM, Parker CM, Arp EW, Swanson MS, Minsavage GD, Kriech AJ, Osborn LV, Freeman JJ, Barter RA, Newton PE, Beazley SL, Stewart CW. Asphalt fume dermal carcinogenicity potential: I. Dermal carcinogenicity evaluation of asphalt (bitumen) fume condensates. Regul Toxicol Pharmacol 2011;61:9-16. PMID: [21524677](https://pubmed.ncbi.nlm.nih.gov/21524677/); DOI: [10.1016/j.vrtph.2011.04.003](https://doi.org/10.1016/j.vrtph.2011.04.003).
- Hill 2015. Hill RH, Ferraro JR, Dodson JL, Hockman EL, Amy E, McGovern AE, Fayerweather WE. Quantification of Total Particulate Matter and Benzene-Soluble Fraction Inhalation Exposures in

Roofing Workers Performing Tear-off Activities, J Occup Environ Hyg 2015; 12:450-457. DOI: [10.1080/15459624.2015.1009981](https://doi.org/10.1080/15459624.2015.1009981).

IARC 1985. International Agency for Research on Cancer, "Polynuclear Aromatic Compounds, Part 4: Bitumens, Coal Tars and Derived Products, Shale-Oils and Soots." IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Volume 35. Lyon, France: IARC, 1985. Available at <http://monographs.iarc.fr/ENG/Monographs/vol1-42/mono35.pdf>.

IARC 1987. International Agency for Research on Cancer, "Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42." IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Supplement 7. Lyon, France: IARC, 1987. Available at <http://monographs.iarc.fr/ENG/Monographs/suppl7/Suppl7.pdf>.

IARC 2013. International Agency for Research on Cancer. IARC monographs on the evaluation of carcinogenic risks to humans. Vol. 103: Some N- and S-heterocyclic polycyclic aromatic hydrocarbons. IARC Monograph No. 103. Lyon/ Geneva: International Agency for Research on Cancer/World Health Organization (WHO); 2013b. Available at <http://monographs.iarc.fr/ENG/Monographs/vol103/mono103.pdf>.

Kriech 2007. Kriech AJ, Osborn LV, Wissel HL, Redman AP, Smith LA, Dobbs TE. Generation of bitumen fumes using two fume generation protocols and comparison to worker industrial hygiene exposures. J Occup Environ Hyg 2007;4:6–19. DOI: [10.1080/15459620701358102](https://doi.org/10.1080/15459620701358102).

Niemeier 1988. Niemeier RW, Thayer PS, Menzies KT, Von Thuna P, Moss CE, Burg J. A comparison of the skin carcinogenicity of condensed roofing asphalt and coal tar pitch fumes. In: Dennis AJ, ed. Polynuclear aromatic hydrocarbons: a decade of progress: proceedings of the tenth international symposium of polynuclear aromatic hydrocarbons. Columbus (OH): Battelle Press; 1988. pp 609-647.

NIOSH 2000. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, "Hazard Review, Health Effects of Occupational Exposure to asphalt." NIOSH Publication No. 2001-110. Cincinnati, Ohio, NIOSH, 2000, 150 pp.; available at: <http://www.cdc.gov/niosh/docs/2001-110/pdfs/2001-110.pdf>.

NIOSH 2003a. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, "Asphalt Fume Exposures during the Application of Hot Asphalt to Roofs Current Practices for Reducing Exposures." Cincinnati OH: DHHS (NIOSH) Publication No. 2003-112, June 2003; available at: <http://www.cdc.gov/niosh/docs/2003-112/pdfs/2003-112.pdf>.

NIOSH 2003b. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, "Reducing Roofers' Exposure to

Asphalt Fumes.” Cincinnati OH: DHHS (NIOSH) Publication No. 2003-107, August 2003; available at: <http://www.cdc.gov/niosh/docs/2003-107/pdfs/2003-107.pdf>.

NIOSH 2007. U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control and Prevention, National Institute for Occupational Safety and Health, “Workplace Solutions: Reducing Worker Exposure to Asphalt Fumes from Roofing Kettles.” Cincinnati OH: DHHS (NIOSH) Publication No. 2007-115, February 2007; available at: <http://www.cdc.gov/niosh/docs/wp-solutions/2007-115/pdfs/2007-115.pdf>.

NRCA 2016. National Roofing Contractors Association, “2015-2016 NRCA Annual Market Survey.” Rosemont IL: NRCA. Available on request to NRCA, and at <http://www.nrca.net/store/detail/2015-16-nrca-market-survey/1556>.

OEHHA 2013. OEHHA, “Notice: Regarding Certain IARC (International Agency For Research On Cancer) 2B Chemicals.” January 4, 2013. Available at <http://oehha.ca.gov/proposition-65/cnr/regarding-certain-iarc-international-agency-research-cancer-2b-chemicals>.

OEHHA 2016a. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), “Notice To Interested Parties, Prioritization: Chemicals For Consultation By The Carcinogen Identification Committee.” September 9, 2016. Available at <http://oehha.ca.gov/proposition-65/cnr/prioritization-2016-chemicals-consultation-carcinogen-identification-committee>.

OEHHA 2016b. Office of Environmental Health Hazard Assessment, “Chemicals for CIC Consultation: Asphalt and Asphalt Emissions Associated with Road Paving and Asphalt and Asphalt Emissions Associated with Roofing.” August 2016. Available at <http://oehha.ca.gov/media/downloads/cnr/090916asphaltmissions.pdf>.

OEHHA 2016c. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, “Final Statement of Reasons, Title 27, California Code of Regulations Proposed Repeal of Article 6 and Adoption of New Article 6 Regulations for Clear and Reasonable Warnings.” September 2, 2016. Available at <http://oehha.ca.gov/media/downloads/cnr/art6fsor090116.pdf>.

OEHHA 2016d. Office of Environmental Health Hazard Assessment, “Title 27 California Code of Regulations, Article 6 Clear and Reasonable Warnings.” September 2, 2016. Available at <http://oehha.ca.gov/media/downloads/cnr/art6regtextclean090116.pdf>.

OEHHA 2016e. Office of Environmental Health Hazard Assessment, “Notice of Adoption New Section 25205, Proposition 65 Lead Agency Website.” Published January 25, 2016 at <http://oehha.ca.gov/proposition-65/cnr/notice-adoption-new-section-25205-proposition-65-lead-agency-website>.

- OSHA 2012. U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910, et al.: Hazard Communication; Final Rule. Federal Register March 26, 2012; 77(58)17574-17896. Available at <https://www.gpo.gov/fdsys/pkg/FR-2012-03-26/pdf/2012-4826.pdf>.
- Rhomberg 2015. Rhomberg LR, Mayfield DB, Goodman JE, Butler EL, Nascarella MA & Williams DR. Quantitative cancer risk assessment for occupational exposures to asphalt fumes during built-up roofing asphalt (BURA) operations. Crit Rev Toxicol 2015;45(10):873-918. DOI: [10.3109/10408444.2015.1094450](https://doi.org/10.3109/10408444.2015.1094450).
- Sivak 1997. Sivak A, Niemeier R, Lynch D, Beltis K, Simon S, Salomon R, Latta R, et al. Skin carcinogenicity of condensed asphalt roofing fumes and their fractions following dermal application to mice. Cancer Lett 1997;117:113-123. PMID: [9233840](https://pubmed.ncbi.nlm.nih.gov/9233840/); DOI: [10.1016/S0304-3835\(97\)00214-0](https://doi.org/10.1016/S0304-3835(97)00214-0).
- Trumbore 2011. Trumbore D, Osborn L, Blackburn G, Niebo R, Kriech A, Maxim LD. Effect of Oxidation and Extent of Oxidation on Biologically Active PACs in Asphalt Products. Inhalation Toxicol 2011; 23(12):745-761. PMID: [21967499](https://pubmed.ncbi.nlm.nih.gov/21967499/); DOI: [10.3109/08958378.2011.608742](https://doi.org/10.3109/08958378.2011.608742).
- Trumbore 2015. Trumbore D, Osborn L, Johnson K, Fayerweather W. Airborne Exposures to Polycyclic Aromatic Compounds among Workers in Asphalt Roofing Manufacturing Facilities. J Occup Environ Hyg 2015;12(8):564-576. PMID: [25807312](https://pubmed.ncbi.nlm.nih.gov/25807312/); DOI: [10.1080/15459624.2015.1022651](https://doi.org/10.1080/15459624.2015.1022651).
- Zanardi 2013. Zanardi F, Salvarani R, Cooke RM, Pirastu R, Baccini M, Christiani D, Curti S, Risi A, Barbieri A, Barbieri G, Mattioli S and Violante FS. Carcinoma of the pharynx and tonsils in an occupational cohort of asphalt workers. Epidemiology 2013;24(1):100-103. PMID: [23232615](https://pubmed.ncbi.nlm.nih.gov/23232615/) DOI: [10.1097/EDE.0b013e318276cc95](https://doi.org/10.1097/EDE.0b013e318276cc95).

# Attachment I

Attorney General Consent Judgement

November 12, 2003

1 BILL LOCKYER  
Attorney General  
2 RICHARD M. FRANK  
Chief Assistant Attorney General  
3 THEODORA BERGER  
Assistant Attorney General  
4 CRAIG C. THOMPSON  
EDWARD G. WEIL  
5 Supervising Deputy Attorney General  
DENNIS A. RAGEN  
6 Deputy Attorney General  
State Bar No. 106468  
7 110 West A Street, Suite 1100  
San Diego, CA 92101  
8 Telephone: (619) 645-2016  
Fax: (619) 645-2012  
9  
10 Attorneys for People of the State of California

11 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA  
12 FOR THE COUNTY OF ALAMEDA

14 PEOPLE OF THE STATE OF CALIFORNIA, ex rel.  
BILL LOCKYER, Attorney General,  
15  
16 Plaintiffs,

Case No.: RG 03-082954  
17  
18  
19  
20  
21  
22  
23 CONSENT JUDGMENT

v.

18 BLUE'S ROOFING COMPANY, INC., a California  
corporation; FRYER ROOFING COMPANY, INC., a  
California corporation; a California corporation;  
19 ENTERPRISE ROOFING SERVICE, INC., a  
California corporation; THE LAWSON ROOFING  
20 COMPANY, INC., a California corporation; and  
REINHARDT ROOFING, INC., a California  
21 corporation; and DOES 1 through 1,800, inclusive,  
22  
23 Defendants.

24 Plaintiff, the People of the State of California ("People"), and defendants BLUE'S  
25 ROOFING COMPANY; FRYER ROOFING COMPANY, INC.; ENTERPRISE ROOFING  
26 SERVICE, INC.; THE LAWSON ROOFING COMPANY, INC. and REINHARDT ROOFING,  
27 INC. (collectively referred to herein as the "Settling Defendants") enter into this Consent  
28 Judgment as follows:

1           **1.           Introduction**

2           1.1       On February 14, 2003, the People of the State of California, *ex rel.* Bill Lockyer,  
3 Attorney General ("People"), brought the present action (the "State Action"), captioned as *People*  
4 *v. Blue's Roofing Company, et al.*, in the Alameda County Superior Court, Case No. 03-082954  
5 (hereinafter "State Action"), naming Settling Defendants as defendants and alleging that Settling  
6 Defendants and 1,800 other similarly situated Doe defendants violated the California Safe  
7 Drinking Water and Toxic Enforcement Act, California Health & Safety Code sections 25249.5  
8 *et seq.* ("Proposition 65") and Business & Professions Code section 17200 *et seq.* ("Unfair  
9 Competition Law") by exposing employees to chemicals listed pursuant to Proposition 65  
10 without providing "clear and reasonable" warnings. Such alleged exposures constitute  
11 "occupational" exposures within the meaning of the Proposition 65 implementing regulations set  
12 forth at California Code of Regulations, title 22, section 12601, subdivision (c).

13           1.2       The People filed the State Action after examining "60-Day Notices of Violation,"  
14 (the "Notices") that Consumer Advocacy Group ("CAG") and Environmental World Watch  
15 ("EWW") had served on public enforcement agencies and Settling Defendants, with the  
16 exception of Fryer Roofing Company. The Notices alleged that Settling Defendants violated  
17 Proposition 65 by failing to warn their employees and other persons in California that certain  
18 materials, described in section 1.5 below, expose those persons to the Listed Chemicals. The  
19 Notices alleged exposures that constitute "consumer product," "occupational" and  
20 "environmental" exposures within the meaning of the Proposition 65 implementing regulations  
21 set forth at California Code of Regulations, title 22, section 12601, subdivisions (b), (c) and (d).

22           1.3       In addition to alleging that Settling Defendants caused occupational exposures  
23 within the meaning of Proposition 65, the State Action alleges that the People will continue to  
24 investigate this matter in order to determine whether the business activities of the defendants  
25 caused environmental or consumer product exposures that would require warnings under  
26 Proposition 65.

27           1.4       Settling Defendants are companies that employ ten or more persons and act  
28 primarily as roofing contractors.

1           1.5     Settling Defendants use roofing materials, some of which contain asphalt or coal  
2 tar, the use of which is alleged to expose persons to the following chemicals: acetaldehyde;  
3 arsenic (inorganic arsenic compounds); benza[a]anthracene; benzene; benzo[a]pyrene;  
4 benzo[b]flouranthene; benzo[k]flouranthene; beryllium and beryllium compounds; 1,3 butadiene;  
5 cadmium and cadmium compounds; carbazole; chromium (hexavalent compounds); chrysene;  
6 dibenzo[a,j]acridine; dibenz[a,h]anthracene; dibenzo[a,e]pyrene; dibenzo[a,h]pyrene;  
7 dibenzo[a,i]pyrene; dibenzo[a,l]pyrene; dichloromethane (methylene chloride); formaldehyde  
8 (gas); indeno[1,2,3,-cd]-pyrene; lead and lead compounds; 5-methylchrysene; nickel and certain  
9 nickel compounds; silica, crystalline; tetrachloroethylene (perchloroethylene); toluene  
10 diioscyanate; trichloroethylene; carbon disulfide; mercury and mercury compounds; and toluene  
11 (hereinafter the "Covered Chemicals").

12           1.6     The Covered Chemicals are listed in the regulations promulgated under  
13 Proposition 65 as chemicals known to the State of California to cause cancer and/or reproductive  
14 harm. A list of the roofing products, that consist of, contain or result in exposure to either  
15 asphalt or coal tar and are covered by this Consent Judgment (the "Materials") is provided in  
16 Exhibit A. Some of the Materials are heated and/or delivered to the place of application using a  
17 kettle, tank truck or other equipment. Tank trucks and kettles are collectively referred to herein  
18 as "Heating and Delivery Equipment."

19           1.7     On February 20, 2003, CAG brought an action in the public interest captioned as  
20 *Consumer Advocacy Group v. Blue's Roofing Company, et al.*, in the Alameda County Superior  
21 Court, Case No. 03-083526 (hereinafter "CAG Action") naming Blue's Roofing Company;  
22 Enterprise Roofing Service, Inc.; The Lawson Roofing Company, Inc.; Reinhardt Roofing, Inc.;  
23 and Does 1 - 1,800 as defendants, and alleging that such named defendants and Doe defendants  
24 violated Health & Safety Code section 25249.6 and Business & Professions Code sections 17200  
25 and 17500 by exposing persons other than employees to chemicals listed pursuant to  
26 Proposition 65, that are contained in the Materials, without providing "clear and reasonable"  
27 warnings. Such alleged exposures constitute "consumer product" and "environmental" exposures  
28 ///

1 within the meaning of the Proposition 65 implementing regulations set forth at California Code  
2 of Regulations, title 22, section 12601, subdivisions (b) and (d), respectively.

3 1.8 On April 28, 2003, the State Action and the CAG Action were consolidated by  
4 order of this Court under Alameda County Superior Court Case No. 03-082954.

5 1.9 On May 16, 2003, the People filed a First Amended Complaint for Civil Penalties  
6 and Injunctive Relief. The People's Complaint and First Amended Complaint are collectively  
7 referred to herein as the "State Complaint."

8 1.10 For purposes of this Consent Judgment only, the parties stipulate that: (i) this  
9 Court has jurisdiction over the allegations of violations contained in the State Complaint and  
10 Notices, (ii) this Court has personal jurisdiction over Settling Defendants as to the acts alleged in  
11 the State Complaint, (iii) venue is proper in the County of Alameda, and (iv) this Court has  
12 jurisdiction to enter this Consent Judgment as a full settlement and resolution of the allegations  
13 contained in the State Complaint, and of all claims which were or could have been raised by any  
14 person or entity based on whole or in part, directly or indirectly, on the facts alleged in the  
15 Notices, in the State Complaint, or arising therefrom or related thereto.

16 1.11 The parties enter into this Consent Judgment pursuant to a settlement of certain  
17 disputed claims between the parties as alleged in the State Complaint and Notices, for the  
18 purpose of avoiding prolonged and costly litigation between the parties hereto. By execution of  
19 this Consent Judgment, the Settling Defendants do not admit any fact, conclusion of law, or  
20 violation of law, including, but not limited to, any violations of Proposition 65, the Unfair  
21 Competition Law or any other statutory, common law or equitable requirements relating to the  
22 Materials. Neither this Consent Judgment, nor the parties' compliance with this Judgment, shall  
23 be construed as an admission by any Settling Defendant of any fact, conclusion of law, issue of  
24 law or violation of law. Nothing in this Consent Judgment shall prejudice, waive or impair any  
25 right, remedy, argument or defense the parties may have in this or any other or future legal  
26 proceedings. Nothing in this Consent Judgment shall preclude the People from opposing any  
27 argument. Nevertheless, Settling Defendants' obligations, responsibilities and duties shall

28 ///

1 remain as set forth in this Consent Judgment unless a modification has been entered by a court of  
2 law as set forth in Paragraph 12, below.

3 1.12 As to each Settling Defendant, the "Effective Date" shall mean the later of (i) the  
4 date upon which that Settling Defendant enters into this Consent Judgment, and (ii) the date upon  
5 which this Court enters this Consent Judgment.

6 **2. Injunctive Relief**

7 2.1 Settling Defendants agree to provide Proposition 65 warnings and to take actions  
8 intended to prevent, reduce and mitigate exposure to the Covered Chemicals arising from using  
9 the Materials, in the manner prescribed below.

10 2.2 Beginning on January 1, 2004, or within ninety (90) days after the Effective Date,  
11 whichever occurs later, each Settling Defendant shall provide Proposition 65 warnings to its own  
12 California employees who use the Materials by fully incorporating Proposition 65 warnings into  
13 the chemical hazard warnings and training provided in its hazard communication training plans,  
14 as part of compliance with the California Hazard Communication Standard under California  
15 Code of Regulations, title 8, section 5194. Such warnings shall include the Proposition 65  
16 warning set forth in Exhibit B, attached hereto.

17 2.3 Beginning on January 1, 2004, or within ninety days after the Effective Date,  
18 whichever occurs later, each Settling Defendant shall post a Proposition 65 warning sign  
19 conspicuously at each of its places of business where employees who are likely to handle, use, or  
20 store the Materials or prepare the Materials for application, are likely to see and read the warning  
21 sign, such as a locker room where such employees store their gear or in the proximity of a time  
22 clock where such employees check in and out on a regular basis. For the purposes of this  
23 Consent Judgment, such places of business shall not include job sites at which services may be  
24 performed, but which are not owned and operated by the Settling Defendants. The Proposition  
25 65 warning sign shall set forth the following warning statement:

26 **WARNING: CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE**  
27 **CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM**

28 Asphalt, coal tar, and other roofing or waterproofing materials contain chemicals  
that are known to the State of California to cause cancer and/or reproductive

1 hazards. Exposure to these chemicals occurs during the installation, repair or  
2 removal of roofing and waterproofing materials containing asphalt, coal tar or  
3 other bituminous binders and other types of roofing or waterproofing materials.  
4 Exposures may occur not only from the roofing or waterproofing materials you are  
5 working with but also from the solvents, mastics, cements, sealants, caulking  
6 compounds and other products and equipment that may be used in the operation.  
7 Always familiarize yourself with the hazards of the materials and equipment you  
8 are using and follow the precautions indicated on product labels, Material Safety  
9 Data Sheets and your health and safety training program.

10 This warning shall be deemed "clear and reasonable" for purposes of Proposition 65 and the  
11 Proposition 65 implementing regulations set forth at California Code of Regulations, title 22,  
12 section 12601(a), with respect to exposures to chemicals listed under Proposition 65 that result  
13 from occupational use of the Materials.

14 2.4 The parties agree that each Settling Defendant shall institute certain measures in  
15 order to reduce or mitigate any occupational, environmental or consumer exposure to the  
16 Covered Chemicals arising from the use of the Materials. Beginning on January 1, 2004, or  
17 within ninety days after the Effective Date, whichever occurs later, each Settling Defendant  
18 shall do the following:

19 2.4.1 Each Settling Defendant shall ensure that Heating and Delivery  
20 Equipment with a capacity greater than 200 gallons will have operational  
21 thermostatic heating controls.

22 2.4.2 Each Settling Defendant shall incorporate the following instructions in its  
23 chemical hazard training plan for employees, as part of its compliance  
24 with the California Hazard Communication Standard, set forth at  
25 California Code of Regulations, title 8, section 5194:

- 26 A. Employees shall restrict access to Heating and Delivery  
27 Equipment in which Materials are being heated for application to  
28 those employees whose job responsibilities require them to be  
present.  
B. Employees shall not heat any Material to a temperature that is  
higher than the manufacturer's specifications for that material.  
C. Employees shall verify the temperature of heated Materials with a  
thermometer on a regular basis, to ensure that the Materials are

///

1 not being heated higher than the applicable manufacturer's  
2 specifications.

3 D. Employees will work upwind from Heating and Delivery  
4 Equipment whenever it is practical to do so.

5 E. Employees will keep kettle lids closed except when necessary to:  
6 (i) add or remove Materials from the kettles, (ii) check the  
7 temperature of the Materials in the kettles; (iii) check the volume  
8 or quality of the Material in the kettles; or (iv) perform similar  
9 activities.

10 F. Employees shall position Heating and Delivery Equipment as  
11 close to the point of application as practical in order to minimize  
12 heat loss.

13 Each Settling Defendant shall train its employees in the physical and  
14 health hazards of the substances in their work area(s), and the measures  
15 that they can take to protect themselves from these hazards, including  
16 specific procedures that the employer has implemented to protect  
17 employees from exposure to hazardous substances, such as appropriate  
18 work practices, emergency procedures and personal protective equipment  
19 to be used. Each Settling Defendant shall periodically monitor its  
20 employees' conduct to promote full compliance with all the requirements  
21 of this section 2.4.

22 2.5 On or before January 10, 2004, or within thirty (30) days after the Effective  
23 Date, whichever is later, each Settling Defendant shall provide the Attorney General with either

24 (i) sample copies of the employee warnings, educational program materials,  
25 and program and monitoring timetables and procedures required by this  
26 Consent Judgment; or

27 (ii) a sworn statement indicating that it has adopted a model training  
28 program, that (a) complies with the terms of this Consent Judgment, and  
(b) includes model warnings, educational program materials and  
monitoring timetables and procedures that have already been submitted to  
the Attorney General.

1                                   **3.                   Payment Pursuant To Health & Safety Code Section 25249.7(b).**

2                   Settling Defendants, including defendants who "opt in" to this Consent Judgment ("Opt-  
3 In Defendants") pursuant to the terms of Paragraph 9, shall pay the following civil penalties:

4                   3.1       Settling Defendants. Within thirty (30) days after the Effective Date, each of the  
5 five undersigned Settling Defendants shall pay the sum corresponding to the number of persons  
6 employed by such Settling Defendant on February 14, 2003, as set forth in the Civil Penalty  
7 Schedule, attached hereto at Exhibit C-1.

8                   3.2       Noticed Opt-In Defendants. Within thirty (30) days after the Effective Date,  
9 each Opt-In Defendant who received one of the Notices described in Paragraph 1.2 shall pay the  
10 sum set forth in Exhibit C-2, hereto that corresponds to (i) the number of persons employed by  
11 such Opt-In Defendant on February 14, 2003 and (ii) the date such Opt-In Defendant opts into  
12 this Consent Judgment.

13                   3.3       Non Noticed Opt-In Defendants. Within thirty (30) days after the Effective  
14 Date, each Opt-In Defendant who did not receive one of the Notices described in Paragraph 1.2  
15 shall pay the sum set forth in Exhibit C-3, hereto that corresponds to (i) the number of persons  
16 employed by such Opt-In Defendant on February 14, 2003 and (ii) the date such Opt-In  
17 Defendant opts into this Consent Judgment.

18                   3.4       Satisfaction of Claims/No Admissions. The payments that defendants make  
19 pursuant to this Paragraph 3 shall be in consideration for the full, final and complete satisfaction  
20 of all claims for civil penalties or restitution for the alleged violations regarding the Materials,  
21 up to and including the date of entry of this Judgment. Making these payments shall not be  
22 construed as an admission by any Settling Defendant of any fact, conclusion of law, issue of  
23 law, or violation of law. Nor shall compliance with the Consent Judgment constitute or be  
24 construed as an admission by any Settling Defendants of any fact, conclusion of law, issue of  
25 fact, law or violation of law.

26                   3.5       Method of Payment. The above-required penalty payments shall be made to the  
27 Office of the California Attorney General, 110 West "A" Street, Suite 1100, San Diego, CA  
28 92101-3702 (Attn: Dennis A. Ragen, Deputy Attorney General). Penalty monies shall be  
apportioned by the State in accordance with Health & Safety Code section 25192, with 75% of

///  
///

1 these funds remitted to the State of California's Department of Toxic Substances Control, and  
2 the remaining 25% apportioned to the Attorney General pursuant to section 25192(a)(2).

3 **4. Rembursement of Fees and Costs.**

4 4.1 Within thirty (30) days of the Effective Date, each Settling Defendant (including  
5 each Opt-In Defendant) shall pay \$250 as reimbursement for the People's attorneys' fees and  
6 costs of investigating, bringing and resolving this action. Payment shall be made to the Office of  
7 the California Attorney General, 110 West "A" Street, Suite 1100, San Diego, CA 92101-3702  
8 (Attn: Dennis A. Ragen, Deputy Attorney General).

9 4.2 In the event that the funds received by the People pursuant to Paragraph 4.1  
10 should exceed the attorneys fees and costs incurred by the people, which the People stipulate  
11 will not exceed \$55,000 in attorneys' fees plus the costs that the People actually incur, the  
12 remaining funds collected pursuant to Paragraph 4.1 shall be distributed to the National Roofing  
13 Foundation, for the purposes of developing and distributing, in conjunction with the National  
14 Institute for Occupational Safety and Health, the National Roofing Contractors Association, and  
15 the United Union of Roofers, Waterproofers and Allied Workers, AFL-CIO, education and  
16 training materials and programs related to minimizing occupational exposure to asphalt fumes.

17 **5. Additional Enforcement Actions; Continuing Obligations.**

18 By entering into this Consent Judgment, the People do not waive any right to take  
19 further enforcement actions regarding any violations not covered by the Complaint or this  
20 Consent Judgment. Nothing in this Consent Judgment shall be construed as diminishing  
21 Settling Defendants' continuing obligation to comply with Proposition 65 or the Unfair  
22 Competition Law in its future activities.

23 **6. Enforcement of Consent Judgment.**

24 The Attorney General may, by motion or order to show cause before the Superior Court  
25 of Alameda, enforce the terms and conditions contained in this Consent Judgment. In any  
26 action brought by the People to enforce this Consent Judgment, the People may seek whatever  
27 fines, costs, attorneys' fees, penalties or remedies are provided by law for failure to comply with  
28 the Consent Judgment. Where said failure to comply constitutes future violations of

1 Proposition 65 or other laws, independent of the Consent Judgment and/or those alleged in the  
2 Complaints, the People are not limited to enforcement of this Consent Judgment, but may seek  
3 in another action, subject to satisfaction of any procedural requirements, including notice  
4 requirements, whatever fines, costs, attorneys' fees, penalties or remedies are provided by law  
5 for failure to comply with Proposition 65 or other laws. However, the rights of Settling  
6 Defendants to defend themselves and its actions in law or equity shall not be abrogated or  
7 reduced in any fashion by the terms of this Paragraph and Settling Defendants shall be entitled  
8 to raise any and all applicable defenses and/or counterclaims, arising in law or equity, against  
9 the People and seek such attorneys' fees and costs as may apply.

10 Without in any way limiting the People's rights as set forth in the preceding paragraph,  
11 the People reserve the right to bring an action against any Settling Defendant for any violations  
12 of Proposition 65 or the Unfair Competition Law that may result, in whole or in part, from the  
13 substantial or continuing failure by that Settling Defendant's employees to comply with the  
14 instructions set forth in Paragraph 2.4.2.

15 **7. Application of Consent Judgment.**

16 This Consent Judgment shall apply to, be binding upon and inure to the benefit of, the  
17 parties, their divisions, subdivisions and subsidiaries and the successors or assigns of each of  
18 them.

19 **8. Claims Covered.**

20 Except as provided below, this Consent Judgment is a final and binding resolution  
21 between the People and each Settling Defendant, satisfying and releasing each Settling  
22 Defendant from any and all claims, causes of action, damages, costs, penalties or attorneys fees  
23 based upon alleged violations of

- 24 - Proposition 65,
- 25 - the Unfair Competition Law (Business and Professions Code Sections 17200 *et seq.*), or
- 26 - any other statutory or common law,

27 that arise from that Settling Defendant's failure to provide clear and reasonable warnings,  
28 pursuant to Proposition 65, that roofing operations cause exposure to the following:

- 1 - the Materials,
- 2 - any other material containing asphalt or coal tar or any of their constituents, or
- 3 - any Covered Chemicals present in or released from the Materials, asphalt or coal tar.

4 This Consent Judgment shall not resolve any claim for chemicals, if any, that are contained in  
5 the Materials and are added to the Proposition 65 list of chemicals known to the State to cause  
6 cancer, or the list of chemicals known to the State to cause reproductive toxicity, after the entry  
7 of judgment. The list of Materials to be governed by this Consent Judgment (*i.e.*, for which  
8 Settling Defendants must comply with the terms and provisions of this Consent Judgment) is set  
9 forth as Exhibit A attached to this Consent Judgment.

10 **9. Additional Parties.**

11 9.1 This Consent Judgment is executed with the understanding that additional  
12 parties not named in the State Complaint have used the Materials in the State of California, and  
13 that those parties are subject to (i) being added to this Action under the fictitious names of Does  
14 1 through 1,600; or (ii) being named in a separate suit brought by a public or private enforcer of  
15 Proposition 65 or the Unfair Competition Law. This Paragraph 9 is intended to provide such  
16 parties with the opportunity to "opt in" to the present settlement. The parties contemplate that  
17 this Court's approval of this Consent Judgment pursuant to Health and Safety Code section  
18 25249.7 shall also constitute approval of all settlements reached through this Paragraph and the  
19 Opt-in Declaration and Agreement, attached hereto as Exhibit D.

20 9.2 Any entity that employs ten or more persons, or that reasonably believes that at  
21 some time during the applicable limitations period it has employed ten or more persons, and  
22 that used the Materials in California during that limitations period, may become a Settling  
23 Defendant in this Action and a party to this Consent Judgment not later than 240 days after it is  
24 approved by the Court, by executing an Opt-in Declaration and Agreement (attached hereto as  
25 Exhibit D) in which such entity shall become subject to all of the requirements and benefits of  
26 this Consent Judgment, and shall indicate:

27 9.2.1 that it used the Materials in the State of California during the  
28 limitations period;



1 **11. Authorization.**

2 Each signatory to this Consent Judgment certifies that he or she is fully authorized by  
3 the party he or she represents to enter into this Consent Judgment on behalf of the party  
4 represented and legally to bind that party.

5 **12. Modification.**

6 This Consent Judgment may be modified from time to time by express written  
7 agreement of the parties, with the approval of the Court, or by an order of this Court in  
8 accordance with law.

9 12.1 If (1) the Attorney General subsequently agrees in a settlement or judicially  
10 entered injunction or consent judgment (i) that certain Materials do not require a warning under  
11 Proposition 65, or (ii) that a modified warning for the Materials is appropriate, or (iii) to  
12 injunctive relief concerning the use, manufacture and/or sale of the Materials that differs from  
13 that imposed in this Consent Judgment, or (2) a court of competent jurisdiction renders a final  
14 judgment in a case brought by the Attorney General (i) that eliminates such a warning  
15 requirement for Materials, or (ii) that modifies such a warning requirement for the Materials, or  
16 (iii) that imposes injunctive relief concerning the use, manufacture and/or sale of the Materials  
17 that differs from that imposed in this Consent Judgment, then the Settling Defendant shall be  
18 entitled to submit evidence to the People demonstrating that the Materials come within the  
19 scope of the agreement or ruling and (i) do not require a warning under Proposition 65, or (ii)  
20 require a modified warning under Proposition 65, or (iii) require different injunctive relief under  
21 Proposition 65.

22 12.2 The People and any Settling Defendant shall have ninety (90) days from the date  
23 on which a Settling Defendant submits such evidence to the People in which to confer and  
24 decide concerning whether (1) to eliminate the warning requirement set forth in Section 2 above  
25 or (2) otherwise to eliminate or modify the injunctive relief provisions of this Consent  
26 Judgment. If the parties agree that the Materials used by Settling Defendants come within the  
27 scope of the agreement or ruling, then they shall jointly move the Court for such modification.

28 ///

1           12.3    If the parties are unable to agree on the elimination or modification of the  
2 warning requirement of this Consent Judgment, or are unable to agree on the elimination or  
3 modification of any of the injunctive relief provisions of this Consent Judgment, a Settling  
4 Defendant may file a motion with the Court, seeking the elimination or modification of the  
5 warning requirement, or the dissolution or modification of the injunctive relief provisions of  
6 this Consent Judgment, based on the agreement or the ruling. In any motion by a Settling  
7 Defendant under this section, the burden of proving, based on the agreement or ruling, (1) that  
8 the Materials do not require a warning, or (2) that the warning should be modified, or (3) that  
9 the injunctive relief provisions of this Consent Judgment should be eliminated or modified shall  
10 remain on that Settling Defendant.

11           **13.           Entry of Judgment Required.**

12           This Consent Judgment shall be null and void, and be without any force or effect, unless  
13 entered by the Court in this matter. If the Consent Judgment is not entered by the Court, the  
14 execution of this Consent Judgment by Settling Defendants or the People shall not be construed  
15 as an admission by Settling Defendants or the People of any fact, conclusion of law, issue of  
16 law, or violation of law.

17           **14.           Retention of Jurisdiction.**

18           This Court shall retain jurisdiction of this matter to implement the Consent Judgment.

19           **15.           Governing Law.**

20           The terms of this Consent Judgment shall be governed by the laws of the State of  
21 California

22           **16.           Notices.**

23           16.1           All correspondence to the People shall be mailed to:

24                           Dennis A. Ragen  
25                           Deputy Attorney General  
26                           Office of the California Attorney General  
27                           110 West A Street, Suite 1100  
28                           San Diego, California 92101-3702

27           16.2           All correspondence to Settling Defendants shall be mailed to the relevant  
28 Settling Defendant's registered agent, with a copy to

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Stanley W. Landfair  
McKenna Long & Aldridge LLP  
One Market Plaza  
Spear Street Tower, 35<sup>th</sup> Floor  
San Francisco, CA 94105  
Tel.: 415-267-4000  
Fax: 415-267-4198

or to such other attorney through which any Settling Defendant shall have entered into this Consent Judgment pursuant to Paragraph 10.

**17. Counterparts and Facsimile.**

This Consent Judgment may be executed in counterparts and facsimile, each of which shall be deemed an original, and all of which, when taken together, shall constitute one and the same document.

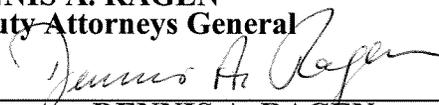
**IT IS SO ORDERED, ADJUDGED AND DECREED**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Judge of the Superior Court

**AGREED TO:**

**BILL LOCKYER,**  
Attorney General  
**RICHARD M. FRANK**  
Chief Assistant Attorney General  
**THEODORA BERGER**  
Senior Assistant Attorney General  
**EDWARD G. WEIL**  
**DENNIS A. RAGEN**  
Deputy Attorneys General

By:   
\_\_\_\_\_ **DENNIS A. RAGEN**

Deputy Attorney General  
Attorneys for the People of the State of  
California

DATE: November 12, 2003

**AGREED TO:**

DATE: \_\_\_\_\_

\_\_\_\_\_  
**Tim Blue**

**BLUE'S ROOFING COMPANY**  
Defendant

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**AGREED TO:**

**DATE:** \_\_\_\_\_

\_\_\_\_\_  
**David Bruce Fryer**

**FRYER ROOFING COMPANY, INC**  
**Defendant**

**AGREED TO:**

**DATE:** \_\_\_\_\_

\_\_\_\_\_  
**Lawrence T. Reardon**

**ENTERPRISE ROOFING SERVICE, INC**  
**Defendant**

**AGREED TO:**

**DATE:** \_\_\_\_\_

\_\_\_\_\_  
**Frank Lawson**

**THE LAWSON ROOFING COMPANY, INC.**  
**Defendant**

**AGREED TO:**

**DATE:** \_\_\_\_\_

\_\_\_\_\_  
**Carole Lowrance**

**REINHARDT ROOFING, INC.**  
**Defendant**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT A**

The Materials, as defined at Paragraph 1.4, include all roofing products that consist of, contain or result in exposure to asphalt or coal tar, and any equipment used in the storage, installation, repair, removal, and transportation of such products whose use may cause persons to be exposed to asphalt or coal tar, including specifically, but not exclusively, the products and equipment listed below:

- Binders
- Felts
- Base sheets
- Cap sheets
- Surfacing materials
- Membrane systems
- Shingles
- Roll roofing
- Felt underlayments
- Flashings
- Coatings
- Mastics
- Cements
- Adhesives
- Caulking compounds
- Insulation materials
- Substrates
- Roofing kettles
- Tank trucks
- Vehicles used to tow roofing kettles to, from, and within job sites
- Torches
- Hot-air welders
- Other heating equipment
- Spreaders
- Felt-laying machines
- Roof removal equipment, including but not limited to roof cutters
- Hand Tools

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT B**

**WARNING: CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE  
CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM**

Asphalt, coal tar, and other roofing or waterproofing materials contain chemicals that are known to the State of California to cause cancer and/or reproductive hazards. Exposure to these chemicals occurs during the installation, repair or removal of roofing and waterproofing materials containing asphalt, coal tar or other bituminous binders and other types of roofing or waterproofing materials. Exposures may occur not only from the roofing or waterproofing materials you are working with but also from the solvents, mastics, cements, sealants, caulking compounds and other products and equipment that may be used in the operation. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

I have read and understand the above warning.

\_\_\_\_\_  
Employee Signature

Dated: \_\_\_\_\_

\_\_\_\_\_  
Employee Name (printed)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT C-1**

**CIVIL PENALTY SCHEDULE FOR NAMED DEFENDANTS**

Defendants Blue's Roofing Company, Inc., Fryer Roofing Company, Inc., Enterprise Roofing Service, Inc., The Lawson Roofing Company, Inc., and Reinhardt Roofing, Inc, shall pay civil penalties pursuant to the following schedule:

Number of Employees	10 - 25	26-50	51 or more
Civil Penalty	\$500	\$750	\$1,000

1 **EXHIBIT C-2**

2 **CIVIL PENALTY SCHEDULE FOR NOTICED OPT-IN DEFENDANTS**

3 Opt-In Defendants who received a Notice and who "opt in" to this Judgment within ninety  
4 days after this Judgment is entered by the Court, shall pay civil penalties pursuant to the following  
5 schedule:

6

Number of Employees	10 - 25	26 - 50	51 or more
Civil Penalty	\$500	\$750	\$1,000

7

8  
9 Opt-In Defendants who received a Notice and who "opt in" to this Consent Judgment more  
10 than ninety days after this Judgment is entered by the Court, but no later than 180 days after such  
11 entry, shall pay civil penalties pursuant to the following schedule:

12

Number of Employees	10 - 25	26-50	51 or more
Civil Penalty	\$600	\$900	\$1,200

13

14  
15 Opt-In Defendants who received a Notice and who "opt in" to this Consent Judgment more  
16 than 180 days after this Judgment is entered by the Court, but no later than 240 days after such entry,  
17 shall pay civil penalties pursuant to the following schedule:

18

Number of Employees	10 - 25	26 - 50	51 or more
Civil Penalty	\$700	\$1,050	\$1,400

19

20

21

22

23

24

25

26

27

28

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT C-3**

**CIVIL PENALTY SCHEDULE FOR NON-NOTICED OPT-IN DEFENDANTS**

Opt-In Defendants who did not receive a Notice and who "opt in" to this Judgment within 180 days after this Consent Judgment is entered by the Court, shall pay civil penalties pursuant to the following schedule

Number of Employees	10 - 25	26 - 50	51 or more
Civil Penalty	\$500	\$750	\$1,000

Opt-In Defendants who did not receive a Notice and who "opt in" to this Consent Judgment more than 180 days after this Judgment is entered by the Court, but no later than 240 days after such entry, shall pay civil penalties pursuant to the following schedule:

Number of Employees	10 - 25	25 - 50	51 or more
Civil Penalty	\$700	\$1,050	\$1,400

1 **EXHIBIT D**

2 **OPT-IN DECLARATION AND AGREEMENT**

3 The undersigned entity or person hereby declares and agrees as follows:

4 1. I reasonably believe that the undersigned entity or person at some time since July  
5 1998 used the Materials in the State of California.

6 2. I stipulate on behalf of the undersigned entity or person to accept service of a  
7 summons and the People's Complaint as a Doe defendant to be designated by the Plaintiffs,  
8 People of the State of California, and voluntarily appear in *People v. Blue's Roofing Company, et*  
9 *al.*, in the Alameda County Superior Court, Case No. 03-082954 (the "Action"), through the  
10 filing of this document.

11 3. On behalf of the undersigned entity or person, I have read and agree to be bound  
12 by all terms and conditions of the Consent Judgment entered in the Action. By signing below, I  
13 further agree on behalf of the undersigned entity or person to be subject to all of the requirements  
14 and benefits of the Consent Judgment.

15 4. By signing below, I further agree on behalf of the undersigned entity or person  
16 that I will cause the original signed Opt-In Declaration and Agreement to be mailed with a check  
17 for its settlement payment (including the payments required by Paragraphs 3 and 4 of the Consent  
18 Judgment), plus the appearance fee of \$228.20, postage pre-paid, within 30 days of execution, to  
19 McKenna Long & Aldridge, ATTN: Eric Lindstrom, One Market Street, Spear Street Tower,  
20 35<sup>th</sup> Floor, San Francisco, California, 94105, or otherwise through another attorney of my choice,  
21 who shall file the Opt-In Declaration and Agreement with the Court, pay the Court motion fee,  
22 serve a copy of the Opt-In Declaration and Agreement upon the California Attorney General and  
23 upon any relevant parties, and submit the Consent Judgment to the Court.

24 5. On February 14, 2003, the number of California employees employed by the  
25 undersigned entity was:

- 26 a. \_\_\_\_ 10-25 employees  
27 b. \_\_\_\_ 26-50 employees  
28 c. \_\_\_\_ 51 or more employees

1           6.       I have full authority to agree to the Consent Judgment and settle this potential  
2 civil action on behalf of the undersigned entity or person.

3           As to the facts listed above, I declare under penalty of perjury under the laws of the State  
4 of California that they are true and correct. As to the terms to which the undersigned person or  
5 entity has agreed, I hereby memorialize agreement to those terms by signing below. Executed in  
6 the County of \_\_\_\_\_, California.

7 Dated: \_\_\_\_\_  
8

9  
10 \_\_\_\_\_  
Signature

11  
12 \_\_\_\_\_  
Print Name

Name and firm of attorney retained:

13  
14 \_\_\_\_\_  
Title

\_\_\_\_\_

15  
16 \_\_\_\_\_  
Corporate Name

\_\_\_\_\_

17 Address, Telephone Number, Facsimile:

Address, Telephone Number, Facsimile:

18  
19 \_\_\_\_\_

\_\_\_\_\_

20  
21 \_\_\_\_\_

\_\_\_\_\_

22  
23 \_\_\_\_\_

\_\_\_\_\_

24  
25 \_\_\_\_\_

\_\_\_\_\_

26  
27  
28

## Attachment II

Consumer Advocacy Group Consent Judgement

December 2, 2003

1 REUBEN YEROUSHALMI (SBN 193981)  
DANIEL D. CHO (SBN 105409)  
2 DANIEL J. HARTMAN (SBN 223005)  
YEROUSHALMI & ASSOCIATES  
3 3700 Wilshire Boulevard, Suite 480  
Los Angeles, CA 90010  
4 Telephone: (213) 382-3183  
Facsimile: (213) 382-3430  
5

6 Attorneys for Plaintiff  
CONSUMER ADVOCACY GROUP, INC.

7  
8 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
COUNTY OF ALAMEDA  
9

10 PEOPLE OF THE STATE OF  
CALIFORNIA, ex rel. BILL LOCKYER,  
11 Attorney General,

12 Plaintiffs,

13 v.

14 BLUE'S ROOFING COMPANY; et al.,

15 Defendants.

16  
17 CONSUMER ADVOCACY GROUP, INC.,

18 Plaintiff,

19 v.

20 BLUE'S ROOFING COMPANY; et al.,

21 Defendants.  
22

Case No. 03-082954

**[PROPOSED] CONSENT JUDGMENT AS  
TO CONSUMER ADVOCACY GROUP,  
INC. AND BLUE'S ROOFING  
COMPANY; ENTERPRISE ROOFING  
SERVICE, INC; THE LAWSON  
ROOFING COMPANY, INC. AND  
REINHARDT ROOFING, INC.**

Date action filed: February 14, 2003

Trial date: Not set

23 Plaintiff, CONSUMER ADVOCACY GROUP, INC., and defendants BLUE'S  
24 ROOFING COMPANY; ENTERPRISE ROOFING SERVICE, INC; THE LAWSON  
25 ROOFING COMPANY, INC., REINHARDT ROOFING, INC. and the entities listed in Exhibit  
26 E to this Consent Judgment (collectively referred to herein as the "Settling Defendants") enter  
27 into this Consent Judgment as follows:  
28



1           1.5     In December 2001 and/or March 2002, CAG served public enforcement agencies  
2 and Settling Defendants with documents entitled “60-Day Notice of Violation” (the “Notices”),  
3 which provided public enforcers and the Settling Defendants with notice that Settling  
4 Defendants were alleged to have violated Proposition 65 by failing to warn their employees and  
5 other persons in California that the Materials used by Settling Defendants expose those persons  
6 to the Covered Chemicals.

7           1.6     On February 14, 2003, the People of the State of California, *ex rel.* Bill Lockyer,  
8 Attorney General, brought an action captioned as *People v. Blue’s Roofing Company, et al.*, in  
9 the Alameda County Superior Court, Case No. 03-082954 (hereinafter “State Action”), naming  
10 BLUE’S ROOFING COMPANY; FRYER ROOFING COMPANY, INC; ENTERPRISE  
11 ROOFING SERVICE, INC; THE LAWSON ROOFING COMPANY, INC. and REINHARDT  
12 ROOFING, INC. as defendants and alleging that those defendants and other similarly situated  
13 companies violated Health & Safety Code section 25249.6 and Business & Professions Code  
14 section 17200, *et seq.* (“Unfair Competition Law”) by exposing employees to chemicals listed  
15 pursuant to Proposition 65 contained in the Materials without providing “clear and reasonable”  
16 warnings. Such alleged exposures constitute “occupational” exposure within the meaning of the  
17 Proposition 65 implementing regulations set forth at California Code of Regulations, title 22,  
18 section 12601, subdivision (c).

19           1.7     On February 20, 2003, CAG brought an action in the public interest captioned as  
20 *Consumer Advocacy Group v. Blue’s Roofing Company, et al.*, in the Alameda County Superior  
21 Court, Case No. 03-083526 (hereinafter “CAG Action”) naming BLUE’S ROOFING  
22 COMPANY; ENTERPRISE ROOFING SERVICE, INC; THE LAWSON ROOFING  
23 COMPANY, INC.; REINHARDT ROOFING, INC. and John Does 1 – 1800 as defendants, and  
24 alleging that such named defendants and John Doe defendants violated Health & Safety Code  
25 section 25249.6 and Business & Professions Code sections 17200, *et seq.*, and 17500, *et seq.*,  
26 by exposing employees and other persons to chemicals listed pursuant to Proposition 65  
27 contained in the Materials without providing “clear and reasonable” warnings. Such alleged  
28

1 exposures constitute “consumer product,” “occupational” and “environmental” exposures  
2 within the meaning of the Proposition 65 implementing regulations set forth at California Code  
3 of Regulations, title 22, section 12601, subdivisions (b), (c) and (d), respectively.

4 1.8 On April 28, 2003, the State Action and the CAG Action were consolidated  
5 under Alameda County Superior Court Case No. 03-082954.

6 1.9 On May 16, 2003, the People filed a First Amended Complaint for Civil  
7 Penalties and Injunctive Relief.

8 1.10 For purposes of this Consent Judgment only, the parties stipulate that this Court  
9 has jurisdiction over the allegations of violations contained in the CAG Complaint and Notices  
10 to the extent they are not the subject of the State Action, that the Court has personal jurisdiction  
11 over Settling Defendants as to the acts alleged in the CAG Complaint and Notices, that venue is  
12 proper in the County of Alameda and that this Court has jurisdiction to enter this Consent  
13 Judgment as a full settlement and resolution of the allegations contained in the CAG Complaint  
14 and Notices, and of all claims which were or could have been raised by any person or entity  
15 based on whole or in part, directly or indirectly, on the facts alleged in the Notices, in the CAG  
16 Complaint, or arising therefrom or related thereto, to the extent they are not the subject of the  
17 State Action.

18 1.11 The parties enter into this Consent Judgment pursuant to a settlement of certain  
19 disputed claims between the parties as alleged in the CAG Complaint and Notices to the extent  
20 they are not the subject of the State Action for the purpose of avoiding prolonged and costly  
21 litigation between the parties hereto. By execution of this Consent Judgment, the parties do not  
22 admit any fact, conclusion of law, issue of law or violation of law, including, but not limited to,  
23 any fact, conclusion of law, issue of law, or violation of law suggesting or demonstrating any  
24 violations of Proposition 65, the Unfair Competition Law or any other statutory, common law or  
25 equitable requirements relating to the Materials. Nothing in this Consent Judgment shall be  
26 construed as an admission by the parties of any fact, conclusion of law, issue of law or violation  
27 of law. Nor shall compliance with the Consent Judgment constitute or be construed as an

1 admission by the parties of any fact, conclusion of law, issue of law, or violation of law.  
2 Nothing in this Consent Judgment shall prejudice, waive or impair any right, remedy, argument  
3 or defense the parties may have in this or any other or future legal proceedings. Nothing in this  
4 Consent Judgment shall preclude CAG from opposing any argument. Nevertheless, Settling  
5 Defendants' obligations, responsibilities and duties shall remain as set forth in this Consent  
6 Judgment unless a modification has been entered by a court of law as set forth in Paragraph 15,  
7 below.

8 **2. Injunctive Relief.**

9 2.1 Settling Defendants agree to provide Proposition 65 warnings and to take actions  
10 intended to prevent, reduce and mitigate exposure to the Covered Chemicals arising from using  
11 the Materials, in the manner prescribed below.

12 2.2 Beginning on January 1, 2004, or within ninety (90) days after entering into this  
13 Consent Judgment, whichever occurs later, each Settling Defendant shall provide Proposition 65  
14 warnings to its own California employees who use the Materials by fully incorporating  
15 Proposition 65 warnings into the chemical hazard warnings and training provided in its hazard  
16 communication training plans, as part of compliance with the California Hazard Communication  
17 Standard under California Code of Regulations, title 8, section 5194. Such warnings shall  
18 include the Proposition 65 warning set forth in Exhibit B, attached hereto.

19 2.3 Beginning on January 1, 2004, or within ninety (90) days after entering into this  
20 consent judgment, whichever occurs later, each Settling Defendant shall post a Proposition 65  
21 warning sign conspicuously at each of its places of business where employees who are likely to  
22 handle, use, or store the Materials or prepare the Materials for application, are likely to see and  
23 read the warning sign, such as a locker room where such employees store their gear or in the  
24 proximity of a time clock where such employees check in and out on a regular basis. For the  
25 purposes of this Consent Judgment, such places of business shall not include job sites at which  
26 services may be performed, but which are not owned and operated by the Settling Defendants.  
27 The Proposition 65 warning sign shall set forth the following warning statement:



1 Regulations, title 22, section 12601, subdivisions (b) and (d), respectively, would not be  
2 required. Beginning on January 1, 2004, or within ninety (90) days after entering into this  
3 Consent Judgment, whichever occurs later, each Settling Defendant shall do the following:

4 2.5.1 Each Settling Defendant shall ensure that Heating and Delivery  
5 Equipment with a capacity greater than 200 gallons will have operational  
6 thermostatic heating controls.

7 2.5.2 Each Settling Defendant shall incorporate the following instructions in its  
8 chemical hazard training plan for employees, as part of its compliance  
9 with the California Hazard Communication Standard, set forth at  
10 California Code of Regulations, title 8, section 5194.

11 2.5.2.1 Employees shall restrict access to Heating and Delivery  
12 Equipment in which Materials are being heated for application  
13 to those employees whose job responsibilities require them to  
14 be present.

15 2.5.2.2 Employees shall not heat any Material to a temperature that is  
16 higher than the manufacturer's specifications for that material.

17 2.5.2.3 Employees shall verify the temperature of heated Materials  
18 with a thermometer on a regular basis, to ensure that the  
19 Materials are not being heated higher than the applicable  
20 manufacturer's specifications.

21 2.5.2.4 Employees will work upwind from Heating and Delivery  
22 Equipment whenever it is practical to do so.

23 2.5.2.5 Employees will keep kettle lids closed except when necessary  
24 to: (i) add or remove Materials from the kettles, (ii) check the  
25 temperature of the Materials in the kettles; (iii) the check the  
26 volume or quality of the Material in the kettles; or (iv) perform  
27 similar activities.





1 Aldridge LLP Client Trust Fund Account, to be distributed in accordance with Paragraphs 4, 5  
2 and 6 below.

3 **4. Distribution Of Funds Collected Pursuant To Consent Judgment.**

4 Funds paid by the Settling Defendants and Opt-In Defendants shall be maintained in the  
5 McKenna Long & Aldridge Client Trust Account, to be distributed as follows:

6 4.1 An amount not to exceed \$35,000 shall be paid directly to CAG, to reimburse  
7 CAG for the out-of-pocket investigative costs that it has paid to experts and other third parties,  
8 other than its attorneys, who have analyzed or investigated the scientific or factual basis for the  
9 Notices and Complaints that CAG has served or filed with respect to this matter. CAG will  
10 provide the parties with a satisfactory accounting, supported by documentation, of the  
11 investigative costs that it seeks to recover pursuant to this Subparagraph;

12 4.2 Any funds in excess of \$35,000 and up to \$500,000 shall be paid to the CAG  
13 Holding Account and shall be used to satisfy CAG's attorneys' fees and costs, investigative  
14 costs or other reimbursement or remuneration to which the attorneys for CAG may be entitled  
15 under law ("Plaintiff's Attorneys' Fees and Costs"), subject to Paragraph 5 of this Consent  
16 Judgment, with remaining funds distributed to the CAG Holding Account to be used for such  
17 projects or purposes related to environmental protection, worker health and safety, or reduction  
18 of human exposure to hazardous substances (including administrative and litigation costs arising  
19 from such projects), as CAG may choose and the Attorney General or the Court may approve;

20 4.3 Any funds in excess of \$500,000 and up to \$550,000 shall be paid to the CAG  
21 Holding Account and shall be to be used for such projects or purposes related to environmental  
22 protection, worker health and safety, or reduction of human exposure to hazardous substances  
23 (including administrative and litigation costs arising from such projects), as CAG may choose  
24 and the Attorney General or the Court may approve;

25 4.4 Any further funds in excess of \$550,000 and up to \$700,000 shall be distributed  
26 to NRCA for the purpose of distribution to the National Roofing Foundation for the purposes of  
27 developing education and training materials for complying with Proposition 65 in the handling,

1 using and storing of asphalt roofing materials and preparing them for application and training  
2 programs for minimizing occupational exposure to asphalt fumes in conjunction with the  
3 National Institute for Occupational Safety and Health, the National Roofing Contractors  
4 Association, and the United Union of Roofers, Waterproofers and Allied Workers, AFL-CIO  
5 (“NRF Training Materials”);

6 4.5 Any funds in excess of \$700,000 and up to \$750,000 shall be paid to the National  
7 Roofing Contractors Association (“NRCA”), with the express understanding that such funds  
8 shall be used to reimburse NRCA for attorneys’ fees and costs, investigative costs and other  
9 funds expended in the process of assisting the Parties to resolve this matter; subject to proof of  
10 such costs and such accounting as the Attorney General and the Court may require;

11 4.6 Any funds in excess of \$750,000 and up to \$850,000 shall be paid to the CAG  
12 Holding Account and shall be used to satisfy Plaintiff’s Attorneys’ Fees and Costs, subject to  
13 Paragraph 5 of this Consent Judgment, with remaining funds distributed to the CAG Holding  
14 Account to be used for such projects or purposes related to environmental protection,  
15 worker health and safety, or reduction of human exposure to hazardous substances, as CAG may  
16 choose and the Attorney General or the Court may approve;

17 4.7 Any further funds in excess of \$850,000 and up to \$950,000 shall be paid to the  
18 CAG Holding Account and shall be used for such projects or purposes related to environmental  
19 protection, worker health and safety, or reduction of human exposure to hazardous substances,  
20 as CAG may choose and the Attorney General or the Court may approve;

21 4.8 Any further funds in excess of \$950,000 and up to \$1,050,000 shall be  
22 distributed to NRCA for the purpose of distribution to the National Roofing Foundation for the  
23 purposes of developing NRF Training Materials;

24 4.9 Any funds in excess of \$1,050,000 and up to \$1,250,000 shall be paid to the  
25 CAG Holding Account and shall be used to satisfy Plaintiff’s Attorneys’ Fees and Costs, subject  
26 to Paragraph 5 of this Consent Judgment, with remaining funds distributed to the CAG Holding  
27 Account to be used for such projects or purposes related to environmental protection, worker

1 health and safety, or reduction of human exposure to hazardous substances, as CAG may choose  
2 and the Attorney General or the Court may approve;

3 4.10 Any further funds in excess of \$1,250,000 and up to \$1,350,000 shall be  
4 distributed to NRCA for the purpose of distribution to the National Roofing Foundation for the  
5 purposes of developing NRF Training Materials;

6 4.11 Any funds in excess of \$1,350,000 and up to \$1,450,000 shall be paid to the  
7 CAG Holding Account to be distributed at CAG's direction for Charitable Purposes. As used in  
8 this Consent Judgment, "Charitable Purposes" shall mean distribution to one or more of the  
9 "Selected Charities," as that term is described below, to fund projects related to environmental  
10 protection, worker health and safety, or reduction of human exposure to hazardous substances.  
11 "Selected Charities" shall mean (1) the charities listed in Exhibit "A" hereto, and (2) other  
12 established charities that are approved in advance by the Attorney General and that enjoy  
13 reputation and stature similar to those listed in Exhibit "F." "Selected Charities" shall not  
14 include CAG or any charity that is affiliated with CAG or any of its officers, directors or  
15 attorneys;

16 4.12 Any funds in excess of \$1,450,000 and up to \$1,550,000 shall be paid to the  
17 NRCA, with the express understanding that such funds shall be used to reimburse NRCA for  
18 attorneys' fees and costs, investigative costs and other funds expended in the process of  
19 assisting the Parties to resolve this matter; subject to proof of such costs and such accounting as  
20 the Attorney General and the Court may require;

21 4.13 Any funds in excess of \$1,550,000 and up to \$1,650,000 shall be paid to the  
22 CAG Holding Account and shall be used to satisfy Plaintiff's Attorneys' Fees and Costs, subject  
23 to Paragraph 5 of this Consent Judgment, with remaining funds distributed to the CAG Holding  
24 Account to be used for such projects or purposes related to environmental protection, worker  
25 health and safety, or reduction of human exposure to hazardous substances, as CAG may choose  
26 and the Attorney General or the Court may approve;



1           4.20 Any funds in excess of \$2,200,000 and up to \$2,250,000 shall be paid to the  
2 NRCA, with the express understanding that such funds shall be used to reimburse NRCA for  
3 attorneys' fees and costs, investigative costs and other funds expended in the process of  
4 assisting the Parties to resolve this matter; subject to proof of such costs and such accounting as  
5 the Attorney General and the Court may require;

6           4.21 Any funds in excess of \$2,250,000 and up to \$2,300,000 shall be paid to the  
7 CAG Holding Account and shall be distributed to Selected Charities at CAG's direction for  
8 Charitable Purposes ;

9           4.22 Any funds in excess of \$2,300,000 and up to \$2,375,000 shall be distributed to  
10 NRCA for the purpose of distribution to the National Roofing Foundation for the purposes of  
11 developing NRF Training Materials;

12           4.23 Any funds in excess of \$2,375,000 shall be paid to the CAG Holding Account  
13 and shall be distributed to Selected Charities at CAG's direction for Charitable Purposes  
14 The payment, accounting, distribution and use of all funds collected and distributed under this  
15 Paragraph shall be subject to such verification and such restrictions as the Attorney General or  
16 the Court reasonably might require.

17           **5. Payment Of Plaintiff's Attorneys' Fees And Costs.**

18           5.1 **First Fee Application - Original Settling Defendants.** Plaintiffs' first  
19 application ("First Fee Application") will seek recovery for time and expenses that CAG's  
20 attorneys have expended (i) with respect to the negotiation and entry of this Consent Judgment,  
21 and (ii) in investigating and prosecuting the CAG Action against the Settling Defendants,  
22 through the date of entry of this Consent Judgment. The First Fee Application will be made  
23 simultaneously with the parties' motion for approval of this Consent Judgment;

24           5.2 **Subsequent Fee Applications – Opt-In Defendants.** CAG may make  
25 additional fee applications ("Subsequent Fee Applications") at the close of the first and second  
26 Opt-In Periods. Each of the Subsequent Fee Applications will seek recovery for time and  
27 expenses that CAG's attorneys expend in investigating and prosecuting this action against those





1 Consent Judgment, provide CAG with a summary of the alleged non-compliance  
2 and necessary corrective measures. The Attorney General and CAG will then  
3 meet and confer for the purpose of resolving the issues. If the issues are  
4 successfully resolved during this meet and confer process, the Attorney General  
5 will instruct Settling Defendants to release the Judgment Funds in the CAG  
6 Holding Account to CAG.

7 6.4 **Submittals to this Court.** If the Attorney General’s review discloses that CAG  
8 has not complied with California laws, regulations and court judgments  
9 applicable to CAG or the Settlement Proceeds, and the meet and confer process  
10 described in the preceding Paragraph is unsuccessful, the Attorney General will,  
11 within 120 days of entry of this Consent Judgment, provide the Court and the  
12 Parties with a written summary (“AG Submittal”) of any alleged non-compliance  
13 and necessary corrective measures. Within 30 days after receiving the AG  
14 Submittal, CAG shall provide the Attorney General and this Court with a  
15 response (“CAG Response”) that (i) responds to any instances of alleged non-  
16 compliance set forth the AG Submittal, (ii) proposes procedures that will ensure  
17 that any funds that CAG receives pursuant to this Consent Judgment will be  
18 expended in compliance with this Judgment and all applicable California laws  
19 and regulations; and (iii) requests that the Judgment Funds be distributed from  
20 the CAG Holding Account. Within 21 days after receipt of the CAG Response,  
21 the Attorney General may file a written reply.

22 6.5 **Review and Decision by the Court.** The Court will review the submittals  
23 required by Subparagraph 6.4, above, together with any further briefing,  
24 evidence or documentation that the Court may request from CAG or the Attorney  
25 General. If, based on this review, the Court determines that CAG has made an  
26 adequate showing that it will expend the funds that it receives pursuant to this  
27 Consent Judgment in compliance with this Judgment and applicable California  
28

1 law (including Proposition 65 and the laws applicable to charitable  
2 organizations), then the Court will order that the Judgment Funds in the CAG  
3 Holding Account be distributed to CAG. In ordering any distribution of funds to  
4 CAG, the Court may impose such terms and conditions on the handling and  
5 expenditure of such funds as the Court in its discretion may deem appropriate.  
6 If the Court concludes that CAG has not made an adequate showing that it will  
7 expend the Judgment Funds in compliance with this Judgment and applicable  
8 California law, then the Court, in its discretion, may (i) provide CAG additional  
9 time to make an adequate such showing, or (ii) seek input from CAG, counsel for  
10 Settling Defendants and the Attorney General as to alternative uses of the  
11 Judgment Funds and order such alterative distribution of the funds as is  
12 consistent with the purposes of this Consent Judgment.

13 **6.6 Payment of Plaintiffs' Attorneys Fees and Costs.** Payment of any fees that  
14 this Court awards pursuant to CAG's First Fee Application and Subsequent Fee  
15 Applications shall not be deferred pending the review and determination  
16 procedures set forth in Subparagraphs 6.2 through 6.4 of this Consent Judgment.  
17 Any fees that the Court awards pursuant to such Fee Applications shall be paid to  
18 CAG's attorneys as soon as funds become available for such payments consistent  
19 with the schedule for distribution of funds set forth in Paragraph 4.

20 Nothing in Paragraph 6 is intended to waive (i) the Attorney General's right to take  
21 action to enforce, or seek remedies pursuant to, any law or regulation or (ii) CAG's defenses to  
22 any such action.  
23

24 **7. Additional Enforcement Actions; Continuing Obligations.**

25 By entering into this Consent Judgment, CAG does not waive any right to take further  
26 enforcement actions regarding any violations not covered by the CAG Action or this Consent  
27 Judgment. Nothing in this Consent Judgment shall be construed as diminishing Settling and  
28

1 Opt-In Defendants' continuing obligation to comply with Proposition 65, the Unfair  
2 Competition Law and Business and Professions Code section 17500, *et seq.* in their future  
3 activities.

4 **8. Enforcement of Consent Judgment.**

5 CAG may, by motion or order to show cause before the Superior Court of Alameda,  
6 enforce the terms and conditions contained in this Consent Judgment. In any action brought by  
7 CAG to enforce this Consent Judgment, CAG may seek whatever fines, costs, attorneys' fees,  
8 penalties or remedies are provided by law for failure to comply with the Consent Judgment.  
9 Where said failure to comply constitutes future violations of Proposition 65 or other laws,  
10 independent of the Consent Judgment and/or those alleged in the Complaints, CAG is not  
11 limited to enforcement of this Consent Judgment, but may seek in another action, subject to  
12 satisfaction of any procedural requirements, including notice requirements, whatever fines,  
13 costs, attorneys' fees, penalties or remedies are provided by law for failure to comply with  
14 Proposition 65 or other laws. However, the rights of Settling and Opt-In Defendants to defend  
15 themselves and their actions in law or equity shall not be abrogated or reduced in any fashion by  
16 the terms of this Paragraph and Settling and Opt-In Defendants shall be entitled to raise any and  
17 all applicable defenses and/or counterclaims arising in law or equity against CAG, and seek  
18 such costs, damages, and attorneys' fees as may apply. In any action to enforce the terms of this  
19 Consent Judgment, the prevailing party shall be entitled to and shall collect from the other party  
20 its costs and reasonable attorneys' fees.

21 **9. Application of Consent Judgment.**

22 This Consent Judgment shall apply to, be binding upon and inure to the benefit of, the  
23 parties, including CAG, Settling Defendants and Opt-In Defendants, their divisions,  
24 subdivisions, subsidiaries, and affiliates and the successors or assigns of each of them.

25 **10. Claims Covered.**

26 Except as provided below, this Consent Judgment is a final and binding resolution  
27 between CAG, each Settling Defendant and each Opt-In Defendant, satisfying and releasing

1 each Settling Defendant and each Opt-In Defendant from any and all claims, causes of action,  
2 damages, costs, penalties or attorneys' fees based upon alleged violations of

- 3 - Proposition 65,
- 4 - the Unfair Competition Law (Business and Professions Code  
5 sections 17200 *et seq.*),
- 6 - Business and Professions Code sections 17500 *et seq.*, or
- 7 - any other statutory or common law,

8 that arise from that Settling Defendant's and/or Opt-In Defendant's failure to provide clear and  
9 reasonable warnings, pursuant to Proposition 65, that roofing operations cause exposure to the  
10 following

- 11 - the Materials,
- 12 - any other material containing asphalt or coal tar or any of their  
13 constituents, or
- 14 - any Covered Chemicals present in or released from the  
15 Materials, asphalt or coal tar.

16 This Consent Judgment shall not resolve any claim for chemicals, if any, that are  
17 contained in the Materials and are added to the Proposition 65 list of chemicals known to the  
18 State to cause cancer, or the list of chemicals known to the State to cause reproductive toxicity,  
19 after the entry of judgment. The list of Materials to be governed by this Consent Judgment (*i.e.*,  
20 for which Settling Defendants and Opt-In Defendants must comply with the terms and  
21 provisions of this Consent Judgment) is set forth as Exhibit A attached to this Consent  
22 Judgment.

## 22 **11. Mutual Releases of Claims.**

23 **11.1 CAG's Release of Settling Defendants and Opt-In Defendants.** This Consent  
24 Judgment shall constitute a release from CAG and Environmental World Watch on behalf of  
25 themselves, their agents, representatives, attorneys and assigns, by which they waive all rights  
26 to institute or participate in, directly or indirectly, any form of legal action, and releases all  
27 claims, liabilities, obligations, losses, costs, expenses, penalties, fines and damages, against

1 Settling Defendants and any and all Opt-In Defendants, and their directors, officers, employees,  
2 parent companies, sister companies, subsidiaries, or any other affiliated person who may use,  
3 maintain or sell the Materials, and the successors and assigns of any of them, whether under  
4 Proposition 65 or Business & Profession Code sections 17200, *et seq.*, or 17500 *et seq.*, based  
5 upon Settling Defendants' and any and all Opt-In Defendants' failure to warn about exposure to  
6 chemicals listed under Proposition 65, before and after the entry of this Consent Judgment,  
7 resulting from the sale, distribution, marketing or use of any of the Materials.

8 **11.2 Settling Defendants' and Opt-In Defendants' Release of CAG.** Settling  
9 Defendants, and any and all Opt-In Defendants, by this Consent Judgment, release and waive all  
10 rights to institute any form of legal action against CAG and their attorneys or representatives,  
11 for all actions or statements made by CAG, and their attorneys or representatives, in the course  
12 of seeking enforcement of Proposition 65 or Business & Profession Code through the CAG  
13 Complaint against Settling Defendants and any and all Opt-In Defendants as to the Materials  
14 that are the subject of the Notices and the CAG Complaint.

15 **12. Additional Parties.**

16 12.1 This Consent Judgment is executed with the understanding that additional parties  
17 not named in the CAG Complaint have used the Materials in the State of California, and that  
18 those parties are subject either to a separate suit or to be added to the action as a defendant sued  
19 under the fictitious names of Does 1 through 1800. The parties contemplate that this Court's  
20 approval of this Consent Judgment pursuant to Health and Safety Code section 25249.7 shall  
21 also constitute approval of all settlements reached on behalf of any and all parties who may opt-  
22 in as defendants in this Action and become parties to this Consent Judgment (herein referred to  
23 as an "Opt-In Defendant"), through this Paragraph and the Opt-In Declaration and Agreement  
24 attached hereto as Exhibit D.

25 12.2 Any entity that has received a Notice and employs ten or more persons, or that  
26 reasonably believes that at some time during the applicable limitations period it has employed  
27 ten or more persons, and that used any of the Materials in California during that limitations

1 period, may become an Opt-In Defendant in this Action and a party to this Consent Judgment  
2 not later than 240 days after it is approved by the Court (“Opt-In Period”), by executing an Opt-  
3 In Declaration and Agreement in which such entity shall become subject to all of the  
4 requirements and benefits of this Consent Judgment, and indicates:

5 12.2.1 that it used any of the Materials in the State of California during the  
6 limitations period;

7 12.2.2 that it accepts service of a summons and the Complaint as a Doe  
8 defendant to be designated by CAG;

9 12.2.3 that it has read and agrees to be bound by all terms and conditions of this  
10 Consent Judgment;

11 12.2.4 that it will perform each and every obligation required of the Settling  
12 Defendants under this Consent Judgment in a timely manner;

13 12.2.5 that it will mail the original signed Opt-In Declaration and Agreement  
14 and a check for its settlement payment, plus the motion fee of \$25.40,  
15 postage pre-paid, to McKenna Long & Aldridge, ATTN: Eric Lindstrom,  
16 One Market Street, Spear Street Tower, 35<sup>th</sup> Floor, San Francisco,  
17 California, 94105, or otherwise through an attorney of its choice, who,  
18 after this Consent Judgment is entered, shall file the Opt-In Declaration  
19 and Agreement with the Court, pay the court appearance fee, serve a copy  
20 of the Opt-In Declaration and Agreement upon the California Attorney  
21 General and any other relevant parties, and submit the Consent Judgment  
22 to the Court in accordance with the requirements of Health & Safety  
23 Code section 25249.7(f) and its implementing regulations.

24 12.3 Any entity that has not received a Notice and employs ten or more persons, or  
25 that reasonably believes that at some time during the limitations period it has employed ten or  
26 more persons, and that used any of the Materials in California during the limitations period, may  
27 opt in and become a defendant in this Action and an Opt-In Defendant to this Consent Judgment

1 not later than 240 days after it is approved by the Court, by (1) contacting the attorney for CAG,  
2 Reuben Yeroushalmi, in writing, either in its own right or through counsel, and request to be  
3 sent a 60-day notice of intent to sue under Proposition 65; (2) executing an Opt-In Declaration  
4 and Agreement (attached hereto as Exhibit D) in which such entity shall become subject to all of  
5 the requirements and benefits of this Consent Judgment; and (3) agreeing to the terms set forth  
6 in Paragraphs 12.2.1-12.2.5 and the Opt-In Declaration and Agreement.

7 12.4 An Opt-In Defendant that did receive a Notice shall be deemed to have opted  
8 into this Consent Judgment on the date that it serves notice upon CAG or its attorneys in writing  
9 that it will opt in to this Consent Judgment. An Opt-In Defendant that did not receive a Notice  
10 shall be deemed to have opted into this Consent Judgment on the date that it serves a request in  
11 writing upon CAG or its attorneys that CAG send it a Proposition 65 60-Day notice of intent to  
12 sue.

13 12.5 In order to facilitate the fair and equitable implementation of this provision, and  
14 thus to allow the benefits of this Consent Judgment to be made available to any parties to whom  
15 its provisions might apply, CAG will provide to counsel for the Settling Defendants a copy of  
16 each of the Notices, which identifies all of the parties and the addresses to whom the Notices  
17 were sent, on the date that it executes this Consent Judgment.

18 12.6 In the case of any entity sued by CAG before the Opt-In Period closes, provided  
19 such entity has not become a party to or opted into this Consent Judgment pursuant to Paragraph  
20 12, the opt-in provisions set forth in this Paragraph shall be available to each such entity until  
21 forty (40) days after that entity is served with a summons, complaint in the CAG Action, and a  
22 copy of this executed and entered Consent Judgment pursuant to California Code of Civil  
23 Procedure sections 415.10, *et seq.* If an entity is served with a summons, complaint in the CAG  
24 Action, and a copy of this executed and entered Consent Judgment pursuant to California Code  
25 of Civil Procedure sections 415.10, *et seq.* and it does not opt in to this Consent Judgment  
26 within forty (40) days of legally effective service, then the opt-in provisions in Paragraph 12  
27 shall be foreclosed to that entity.



1 under Proposition 65, or (ii) require a modified warning under Proposition 65, or (iii) require  
2 different injunctive relief under Proposition 65.

3 15.2 CAG and any Settling Defendant or Opt-In Defendant shall have ninety (90)  
4 days from the date on which a Defendant submits such evidence to CAG in which to confer and  
5 decide concerning whether (1) to eliminate the warning requirement set forth in Paragraph 2  
6 above or (2) otherwise to eliminate or modify the injunctive relief provisions of this Consent  
7 Judgment. If the parties agree that the Materials used by Settling Defendants and/or any Opt-In  
8 Defendants come within the scope of the agreement or ruling, then they shall jointly move the  
9 Court for such modification.

10 15.3 If the parties are unable to agree on the elimination or modification of the  
11 warning requirement of this Consent Judgment, or are unable to agree on the elimination or  
12 modification of any of the injunctive relief provisions of this Consent Judgment, a Settling  
13 Defendant or Opt-In Defendant may file a motion with the Court, seeking the elimination or  
14 modification of the warning requirement, or the dissolution or modification of the injunctive  
15 relief provisions of this Consent Judgment, based on the agreement or the ruling. In any motion  
16 by a Settling Defendant or Opt-In Defendant under this Paragraph, the burden of proving, based  
17 on the agreement or ruling, (1) that the Materials do not require a warning, or (2) that the  
18 warning should be modified, or (3) that the injunctive relief provisions of this Consent Judgment  
19 should be eliminated or modified shall remain on that Settling Defendant or Opt-In Defendant.

20 15.4 Subparagraphs 15.1 through 15.3 of this Paragraph shall not apply to the  
21 monetary relief provisions of this Consent Judgment.

22  
23 **16. Entry of Consent Judgment Required.**

24 16.1 This Consent Judgment shall be null and void, and be without any force or effect,  
25 unless entered by the Court in this matter. If the Consent Judgment is not entered by the Court,  
26 the execution of this Consent Judgment by Settling Defendants, Opt-In Defendants or CAG  
27

1 shall not be construed as an admission by Settling Defendants, Opt-In Defendants or CAG of  
2 any fact, conclusion of law, issue of law, or violation of law.

3 16.2 This Consent Judgment is executed with the further expectation that no fewer  
4 than one hundred (100) parties will become parties to this Consent Judgment before it is entered  
5 by the Court. If fewer than one hundred (100) parties do so, then this Consent Judgment shall  
6 be null and void and shall have no effect, and shall not be submitted to the Court for approval  
7 and entry.

8 **17. Retention of Jurisdiction.**

9 This Court shall retain jurisdiction of this matter to implement the Consent Judgment.

10 **18. Severability.**

11 In the event that any of the provisions of this Consent Judgment are held by a court of  
12 competent jurisdiction to be unenforceable, the validity of the enforceable provisions shall not  
13 be adversely affected.

14 **19. Attorneys' Fees.**

15 In the event that a dispute arises with respect to any provision(s) of the Consent  
16 Judgment, and such disputes are resolved by the Court or through mediation, arbitration or other  
17 alternative dispute resolution proceeding, the prevailing party in such action or proceeding shall  
18 be entitled to recover costs and reasonable attorneys' fees.

19 **20. Governing Law.**

20 The terms of this Consent Judgment shall be governed by the laws of the State of  
21 California.

22 **21. Notices.**

23 21.1 All correspondence to CAG shall be mailed to:

24 Reuben Yeroushalmi  
25 Yeroushalmi & Associates  
26 3700 Wilshire Blvd., Suite 480  
27 Los Angeles, CA 90010

1 21.2 All correspondence to Settling Defendants shall be mailed to:  
 2 The relevant Settling Defendant's registered agent  
 3 with copy to

4 Stanley W. Landfair  
 5 McKenna Long & Aldridge LLP  
 6 One Market Plaza  
 7 Spear Street Tower, 35<sup>th</sup> Floor  
 8 San Francisco, CA 94105  
 9 Tel.: 415-267-4000  
 10 Fax: 415-267-4198

11 or to such other attorney through which any Settling Defendant shall have entered into this  
 12 Consent Judgment pursuant to Paragraph 12.

13 **22. Counterparts and Facsimile.**

14 This Consent Judgment may be executed in counterparts and facsimile, each of which  
 15 shall be deemed an original, and all of which, when taken together, shall constitute one and the  
 16 same document.

17 **AGREED TO:**

**AGREED TO:**

18 DATE: 12/1/03

DATE: \_\_\_\_\_

19   
 Karen West

\_\_\_\_\_  
 Tim Blue

20 ~~President~~ *Executive Director*  
 21 CONSUMER ADVOCACY GROUP, INC.

BLUE'S ROOFING COMPANY  
 Defendant

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**AGREED TO:**

DATE: \_\_\_\_\_

\_\_\_\_\_  
Lawrence T. Reardon

ENTERPRISE ROOFING SERVICE, INC  
Defendant

**AGREED TO:**

DATE: \_\_\_\_\_

\_\_\_\_\_  
Frank Lawson

THE LAWSON ROOFING COMPANY, INC.  
Defendant

**AGREED TO:**

DATE: \_\_\_\_\_

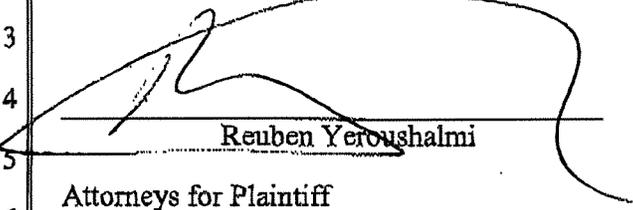
\_\_\_\_\_  
Carole Lowrance

REINHARDT ROOFING, INC.  
Defendant

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**AGREED AS TO FORM:**

YEROUSHALMI & ASSOCIATES

  
\_\_\_\_\_  
Reuben Yeroushalmi

Attorneys for Plaintiff  
CONSUMER ADVOCACY GROUP, INC.  
ENVIRONMENTAL WORLD WATCH

DATE: 12/2/03

**AGREED AS TO FORM:**

MCKENNA LONG & ALDRIDGE LLP

\_\_\_\_\_  
Stanley W. Landfair

Attorneys for Defendants  
BLUE'S ROOFING COMPANY;  
ENTERPRISE ROOFING SERVICE, INC;  
THE LAWSON ROOFING COMPANY, INC.  
and REINHARDT ROOFING, INC.

DATE: \_\_\_\_\_

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT A**

The Materials, as defined at Paragraph 1.4, include all roofing products that consist of, contain or result in exposure to asphalt or coal tar, and any equipment used in the storage, installation, repair, removal, and transportation of such products whose use may cause persons to be exposed to asphalt or coal tar, including specifically, but not exclusively, the products and equipment listed below:

- Binders
- Felts
- Base sheets
- Cap sheets
- Surfacing materials
- Membrane systems
- Shingles
- Roll roofing
- Felt underlayments
- Flashings
- Coatings
- Mastics
- Cements
- Adhesives
- Caulking compounds
- Insulation materials
- Substrates
- Roofing kettles
- Tank trucks
- Vehicles used to tow roofing kettles to, from, and within job sites
- Torches
- Hot-air welders
- Other heating equipment
- Spreaders
- Felt-laying machines
- Roof removal equipment, including but not limited to roof cutters
- Hand tools

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT B**

**WARNING: CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM**

Asphalt, coal tar, and other roofing or waterproofing materials contain chemicals that are known to the State of California to cause cancer and/or reproductive hazards. Exposure to these chemicals occurs during the installation, repair or removal of roofing and waterproofing materials containing asphalt, coal tar, or other bituminous binders and other types of roofing or waterproofing materials. Exposures may occur not only from the roofing or waterproofing materials you are working with but also from the solvents, mastics, cements, sealants, caulking compounds and other products and equipment that may be used in the operation. Always familiarize yourself with the hazards of the materials and equipment you are using and follow the precautions indicated on product labels, Material Safety Data Sheets and your health and safety training program.

I have read and understand the above warning.

\_\_\_\_\_ Dated: \_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Employee Name (printed)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT C-1**

**SCHEDULE OF PAYMENTS FOR SETTLING DEFENDANTS**

Settling Defendants Blue's Roofing Company; Enterprise Roofing Service, Inc; The Lawson Roofing Company, Inc., Reinhardt Roofing, Inc. and the entities listed in Exhibit E to this Consent Judgment shall each pay the following amount corresponding to the number of California employees each employed on February 14, 2003:

<b>Number of California employees:</b>	<b>10-25</b>	<b>26-50</b>	<b>51 or more</b>
<b>Payment:</b>	\$2,000	\$3,500	\$5,000

1 **EXHIBIT C-2**

2 **SCHEDULE OF PAYMENTS FOR NOTICED OPT-IN DEFENDANTS**

3 Opt-In Defendants who received a Notice and who “opt in” to this Consent Judgment  
4 within ninety days after this Consent Judgment is entered by the Court shall each pay the  
5 following amount corresponding to the number of California employees each employed on  
6 February 14, 2003:

7

8 <b>Number of California employees:</b>	<b>10-25</b>	<b>26-50</b>	<b>51 or more</b>
9 <b>Payment:</b>	\$2,000	\$3,500	\$5,000

10

11 Opt-In Defendants who received a Notice and who “opt in” to this Consent Judgment  
12 more than ninety days after this Consent Judgment is entered by the Court, but no later than 180  
13 days after such entry, shall each pay the following amount corresponding to the number of  
14 California employees each employed on February 14, 2003:

15

16 <b>Number of California employees:</b>	<b>10-25</b>	<b>26-50</b>	<b>51 or more</b>
17 <b>Payment:</b>	\$2,500	\$4,375	\$6,250

18

19 Opt-In Defendants who received a Notice and who “opt in” to this Consent Judgment  
20 more than 180 days after this Consent Judgment is entered by the Court, but no later than 240  
21 days after such entry, shall each pay the following amount corresponding to the number of  
22 California employees each employed on February 14, 2003:

23

24 <b>Number of California employees:</b>	<b>10-25</b>	<b>26-50</b>	<b>51 or more</b>
25 <b>Payment:</b>	\$3,000	\$5,250	\$7,500

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**EXHIBIT C-3**

**SCHEDULE OF PAYMENTS FOR NON-NOTICED OPT-IN DEFENDANTS**

Opt-In Defendants who did not receive a Notice and who “opt in” to this Consent Judgment within 180 days after this Consent Judgment is entered by the Court shall each pay the following amount corresponding to the number of California employees each employed on February 14, 2003:

<b>Number of California employees:</b>	<b>10-25</b>	<b>26-50</b>	<b>51 or more</b>
<b>Payment:</b>	\$1,400	\$2,450	\$3,500

Opt-In Defendants who did not receive a Notice and who “opt in” to this Consent Judgment more than 180 days after this Consent Judgment is entered by the Court, but no later than 240 days after such entry, shall each pay the following amount corresponding to the number of California employees each employed on February 14, 2003:

<b>Number of California employees:</b>	<b>10-25</b>	<b>26-50</b>	<b>51 or more</b>
<b>Payment:</b>	\$1,600	\$2,800	\$4,000

1 **EXHIBIT D**

2 **OPT-IN DECLARATION AND AGREEMENT**

3 The undersigned entity or person hereby declares and agrees as follows:

4 1. I reasonably believe that the undersigned entity or person at some time since July  
5 1998 used the Materials in the State of California;

6 2. I stipulate on behalf of the undersigned entity or person to accept service of a  
7 summons and the CAG Complaint as a Doe defendant to be designated by CAG and voluntarily  
8 appear in *People v. Blue's Roofing Company, et al.*, in the Alameda County Superior Court,  
9 Case No. 03-082954 (the "Action"), through the filing of this document;

10 3. On behalf of the undersigned entity or person, I have read and agree to be bound  
11 by all terms and conditions of the Consent Judgment entered in the Action. By signing below, I  
12 further agree on behalf of the undersigned entity or person to be subject to all of the  
13 requirements and benefits of the Consent Judgment.

14 4. By signing below, I further agree on behalf of the undersigned entity or person  
15 that I will cause the original signed Opt-In Declaration and Agreement to be mailed with a  
16 check for its settlement payment, plus the motion fee of \$25.40, postage pre-paid, within 30  
17 days of execution, to McKenna Long & Aldridge, ATTN: Eric Lindstrom, One Market Street,  
18 Spear Street Tower, 35<sup>th</sup> Floor, San Francisco, California, 94105, or otherwise through another  
19 attorney of my choice, who shall file the Opt-In Declaration and Agreement with the Court, pay  
20 the Court motion fee, serve a copy of the Opt-In Declaration and Agreement upon the California  
21 Attorney General and upon any relevant parties, and submit the Consent Judgment to the Court.

22 5. On February 14, 2003, the number of California employees employed by the  
23 undersigned entity was:

- 24 a. \_\_\_\_ 10-25 employees  
25 b. \_\_\_\_ 26-50 employees  
26 c. \_\_\_\_ 51 or more employees

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

6. I have full authority to agree to the Consent Judgment and settle this potential civil action on behalf of the undersigned entity or person.

As to the facts listed above, I declare under penalty of perjury under the laws of the State of California that they are true and correct. As to the terms to which the undersigned person or entity has agreed, I hereby memorialize agreement to those terms by signing below. Executed in the County of \_\_\_\_\_, California.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Corporate Name

Name and firm of attorney retained:

\_\_\_\_\_

Address, Telephone Number, Facsimile:

Address, Telephone Number, Facsimile:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**EXHIBIT E**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28