

MEMORANDUM OF UNDERSTANDING

WHEREAS, Union Oil Company of California dba Unocal (Unocal), owns a refinery located in Rodeo, California. Unocal, the Crockett/Rodeo Coalition, Shoreline Environmental Alliance (SEA) and Communities for a Better Environment (CBE) desire to resolve their dispute concerning fence-line monitoring;

WHEREAS, Unocal, the Crockett/Rodeo Coalition, SEA and CBE (individually "Party" or collectively the "Parties" or "Signatories") have previously agreed to and executed the Good Neighbor Agreement (GNA) dated April 7th, 1995;

WHEREAS, Unocal, the Crockett/Rodeo Coalition, SEA, and CBE have met numerous times to discuss and finalize the design of an improved refinery fence-line monitoring system;

WHEREAS, in accordance with section VII.1.f of the Good Neighbor Agreement (GNA) and condition 75.1.6 of the Land Use Permit (LUP), Unocal is committed to installing an improved fence-line monitoring system.

WHEREAS, Unocal, the Crockett/Rodeo Coalition, SEA, and CBE, or any of their successor's or assigns, agree to be bound by this Memorandum of Understanding.

THEREFORE, for valuable consideration, the receipt of which is hereby acknowledged, Unocal, the Crockett/Rodeo Coalition, SEA and CBE have entered into this Memorandum of Understanding.

I. Unocal agrees to install the following improved fence-line monitoring system (the "System").

A. The kind and location of monitors shall be as shown on Attachment A, which is incorporated by reference herein, and is further described below.

- 1) **FTIR** : The north FTIR will be located behind tank 288 where the interim FTIR is sited and the retroreflector will be moved near tank 208. The south FTIR will be located near the existing Meteorological (MET) Station, south of Unit 100, with its retroreflector near tank 108. The FTIR systems will utilize 120 cube array retroreflectors.
- 2) **TDLS**: The north Tunable Diode Laser System (TDLS) will consist of two units. Both TDLS units will be located north of the tank 241/280 area with the respective retroreflectors located north of tank 288 and north of tank 208. The south TDLS will be co-located with the southern FTIR and its retroreflector will be located south of tank 104.
- 3) **UV**: An Ultra-Violet System (UV) will be co-located with the north and south FTIR system described above in paragraph I.A.1.
- 4) **Organic Gas Detectors**: Organic gas detectors (Catalytic type) shall be located as follows:

- North FTIR site

- Unit 40
- Near E-3 Outfall
- Salt Water Pump House
- South of Tank 1004
- North of Tank 1010

B. The spacing of the monitors shall be as shown on Attachment A as further described below.

- 1) The north FTIR spacing is approximately 1000 meters and the south FTIR spacing is approximately 700 meters.
- 2) The north TDLS spacing is approximately 500 meters each for a total path length of 1000 meters. The south TDLS spacing is approximately 500 meters.
- 3) The UV spacing shall approximate the FTIR spacing.

C. The compounds monitored shall be as shown in Attachment B, which is incorporated by reference herein. Unocal may elect not to monitor acetaldehyde and methyl mercaptan if the full Attachment B list cannot be monitored in real time, as determined by the contractor. Data averaging time will be no greater than six minutes and will be minimized by the contractor so long as it can be accomplished without compromising acceptable spectral quality, as determined by the contractor. All parties recognize that the contractor will also monitor for interferants (e.g. freon) to the extent necessary. Interferants are defined as those chemicals that can be anticipated by the contractor to interfere with the system's ability to accurately detect any of the compounds on Attachment B, using the equipment as specified below. Unocal will require the contractor to provide the GNA Signatories with the basis for their determination on interferants upon request. The chemicals identified in Attachment B will be monitored for using the equipment specified below.

- 1) The TDLS system will be used to monitor for ammonia and hydrogen sulfide.
- 2) The UV system will be used to monitor for benzene, carbon disulfide, chlorine (until this chemical is phased out of the refinery), sulfur dioxide, toluene and xylene. Unocal may, at its own discretion, use the UV system to monitor any other chemical from Attachment B which can be detected at lower levels by the UV system, if this would lead to an improvement in system performance.
- 3) The FTIR system will monitor for the remainder of the compounds listed in Attachment B, that are not described in paragraphs I.C. 1 and 2.

D. The alarm levels for notification to the County which could trigger the use of the various elements of the Community Warning System (CANS, safety sirens, etc.) shall be determined by the process currently being undertaken by the County, the GNA Signatories and Unocal for the chemicals being monitored, as noted in paragraph I.C.

E. Time for system installation and the method of recording, preserving and using data shall be as follows:

- 1) Unocal will require the contractor who installs the System to prepare a project construction schedule. Unocal will ensure that the contractor expressly understands that time is of the essence and that the System must be installed as expeditiously as possible following final approval by the County. Unocal will be responsible for ensuring that the contractor meets the project schedule.
- 2) Unocal will require the contractor operating the System to utilize computers with ample storage and operating capacity for running the System and its software.
- 3) Unocal will require the contractor operating the System to record all data electronically.
- 4) Unocal will require the contractor operating the System to utilize a redundant electronic recording system.
- 5) Unocal will require the contractor operating the System to route alarms to a central location to ensure a timely response.
- 6) Unocal will require the contractor operating the System to monitor the compounds on Attachment B with the equipment as specified in paragraph I.C.1, 2 and 3, at the lowest level technically feasible as determined by the contractor. Unocal will require the contractor to provide the GNA Signatories with the basis for their determination on detection levels upon request.
- 7) Unocal will require the contractor operating the System to prepare a monthly report which will summarize the monitoring data and performance of the System. Specifically, Unocal will require the contractor operating the System to prepare a written summary in the applicable monthly report, which describes downtime periods, and where correctable, develop plans to prevent similar downtime periods in the future. The monthly report will be provided to the County, the BAAQMD, the Unocal CAP and the GNA Signatories.
- 8) Unocal will require the contractor operating the System to provide all data, including raw spectral data, within three working days, to any GNA Signatory upon request. Said requests shall be limited to six per year. Unocal will also require the contractor to provide all data, including raw spectral data, to the BAAQMD, County and CAP, upon request.
- 9) Real-time data access will be provided to the community as follows:
 - a) A surveillance-type video camera with adequate resolution will be utilized to monitor the fenceline monitoring computer screen in real time, with video output only.
 - b) Video output from the video camera will be provided to one recipient as specified by the Signatories. The video output will also be provided to the County and/or the BAAQMD upon request. This video output is being provided for the purpose

of addressing the concerns stated by the Fenceline Working Group that data could be lost. This video output will allow the video output recipient to preserve this information independent of Unocal and its consultants. The Signatories and their designated recipient agree that this video output will not be released to other persons until the video output is at least three working days old.

It is understood by all parties that the real-time video-camera monitoring may experience some down-time due to repairs. Unocal commits to make necessary repairs as soon as reasonably possible. The recipient of the video output will be provided with the name and phone number of a contact at Unocal.

- F. Unocal will utilize qualified contractors to operate and maintain the System. Unocal will contractually obligate the contractor operating the System to maintain the maximum achievable onstream efficiency for each technology. The onstream efficiency will be adjusted for downtime caused by adverse weather conditions.
- G. Unocal will require all contractors designing, installing or operating the System to make determinations for which they are responsible under this Agreement, in a reasonable and scientifically based manner.
- II. Unocal will continue operation of the System for the duration of Land Use Permit No. 2038-93.
- III. The Parties hereby agree that, so long as Unocal timely submits the improved refinery fenceline monitoring system design described in Sections I and II above, they will not oppose said design or the submission thereof. The Parties further agree that, so long as the Contra Costa County Planning Commission approves the improved refinery fenceline monitoring system design described in Sections I and II above, they will refrain from appealing or otherwise opposing said approval. The working group further agrees to withdraw their appeal of the Zoning Administrator's decision dated July 15, 1996, which was affirmed by the Planning Commission on August 27, 1996.
- IV. Any notices or disputes related to this Agreement, between the Parties, shall be accomplished in accordance with Section X of the Good Neighbor Agreement.
- V. The signatories below represent that they are authorized to execute this Memorandum of Understanding on behalf of the Party they are signing for.