

## Letter O3

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November 10, 1999

Michael B. Day

**VIA FACSIMILE (415) 291-8943**  
**AND U.S. MAIL**

Judith Iklé  
CPUC Project Manager  
c/o Public Affairs Management  
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San Francisco, CA 94105

**RE: Comments on the Draft EIR for the Lodi Gas Storage Project**

Dear Ms. Iklé

Wild Goose Storage Inc. (WGSJ) has completed its review of the Lodi Gas Storage Draft Environmental Impact Report (DEIR). While reviewing the DEIR, WGSJ must necessarily compare the scope and depth of information provided by the applicant, the applicant-offered mitigation, and the final CPUC prescribed mitigation, to the environmental review conducted for the Wild Goose project in Application 96-08-058.

In preparing its application, and during the Commission's environmental review, WGSJ openly identified and thoroughly addressed all environmental and social issues associated with development of its project. WGSJ believes that all gas storage projects should be held to similar high standards.

In this context, we offer the following comments:

**ELECTRIC vs. GAS DRIVERS**

**Page 2-8:**

In the paragraph discussing the alternative of electric driven compressor motors in lieu of natural gas fired engines, three of the four bullets summarize and appear to accept the Applicant's justifications for its ultimate finding that electric drivers are not feasible. These summary bullets are based on the Applicant's June 10, 1999 response to the Commission's June 4, 1999 Data Request. We offer the following comments on this issue:

*First Bullet:* As noted on Page 3.11-3, PG&E operates a 60 kV electric transmission line near Peltier and Highway 99. PG&E defines transmission-level voltage as between 50 kV and 1,000 kV (PG&E, RESOURCE: AN ENCYCLOPEDIA OF ENERGY UTILITY TERMS 187 (2<sup>nd</sup> ed. 1992)), and 60 kV is the lowest voltage for transmission lines operated by PG&E. Thus, this 60 kV line is not considered a major transmission line. It is also common for individual industrial customers with large electrical loads to connect to 60 or 115 kV electric transmission lines at either PG&E or customer-owned on-site substations. In fact, Mondavi Winery on Woodbridge Road just southeast of the compressor station site recently connected to PG&E's local 60 kV system to capture significant savings on the winery's electrical costs. PG&E indicated that it could serve the full electric driver power load by re-constructing its 60 kV line between the compressor station site and its Woodbridge Substation. Before this 60 kV line is discounted as a potential source for electrical drivers for the Lodi project, PG&E should be requested to prepare a feasibility study for an electrical connection – if not from the particular transmission line noted above, then from other potentially suitable transmission lines in the immediate vicinity. This feasibility study would provide costs, construction methodology and schedule information that would be necessary to conduct an adequate assessment of electric drivers for the compressors.

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*Second Bullet:* Electric transmission lines are actually known to be very reliable, especially when they are 'looped' to serve a particular customer. With an electrical loop, the customer's electric load can be fed from substations in two different directions, with one substation providing the primary connection. If the primary connection fails for whatever reason, the electrical feed is automatically switched over to the other substation by ultra-sensitive high-speed switches. The Applicant's response to the data request mentions curtailment information provided by PG&E, but the information is not included in the response. In addition to historic curtailments, PG&E should be requested to include an estimate in its feasibility study of curtailments that may be associated with a looped feed.

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*Fourth Bullet:* This statement regarding substantially higher operational costs should be also be substantiated. While cost per kilowatt-hour quotes from local electrical distribution companies are provided in the response to the data request, the actual cost of operating electrical drivers is *not included in the cost estimate table*. With electric utility deregulation and the emergence of merchant power plants, costs have become much more competitive for large electrical users such as this project who can purchase from brokers or directly from the generators instead of from the local distribution company. The Applicant should provide documentation of annual electric cost estimates from brokers or competitive electric service providers offering direct transactions based on a hypothetical operational scenario or load factor.

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In summary, since the project will exceed the emission thresholds established by the local air pollution control district, the feasibility of nonpolluting electric drivers should be fully explored in this DEIR and not deferred to the air district for evaluation and a decision. As part of its evaluation of Best Available Control Technology, the air district will evaluate only the cost factors associated with an electric driver alternative as one of several emission reduction technologies, and will not consider other environmental issues. Since construction of an electric

O3-4

transmission line of over 50 kV to the compressor facility would require the Commission to undertake CEQA review under General Order 131-D, the responsibility for evaluating environmental impacts ultimately rests with the CPUC. It is inappropriate to defer the evaluation to another proceeding as a separate project when it could and should be addressed now.

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(cont'd)

### ADDITIONAL FACILITIES

**Page 2-23:**

The proposed and alternative transmission pipeline routes range from 30 to 33.4 miles in length. DOT regulations (49 CFR § 192.179) require that each point on the pipeline in a Class 1 location must be within 10 miles of a main line sectionalizing block valve. As such, the transmission pipeline to Line 401 will require at least two sectionalizing block valves. This regulation also requires each section of transmission pipeline between main line valves to be equipped with a blowdown valve to evacuate pressurized gas from that section of pipeline to the atmosphere. The location of these above-ground facilities should be identified by the Applicant and included in the project description and appropriate maps. In addition, the resource sections in Chapter 3 should be revised to include a discussion of these facilities where appropriate.

O3-5

**Page 2-32:**

In the Well Pad Sites paragraph, reference is made to the use of radio or microwave communications for valve actuation. If these communications options are to be considered, the site plans for both the well pad and the compressor facility should be revised to show the tower or antenna location, and Section 3.12 should be revised to discuss the visual impact of a radio antenna or a tower to support a microwave dish at these locations.

O3-6

### SPECIAL STATUS SPECIES

**Pages 3.7-17 through 23:**

Section 6.2, which lists the agencies and persons contacted in the preparation of the DEIR, does not indicate that any consultation has taken place with either of the wildlife agencies having primary authority over project impacts to state and federally listed threatened and endangered species. The mitigation measures for potential impacts to federally listed species should include the reasonable and prudent measures and terms and conditions of the federal biological opinions resulting from the Corps of Engineers' consultation with the US Fish and Wildlife Service (USFWS). In addition, the discussion on these pages should reflect the permit process under Fish and Game Code § 2081(b), under which the California Department of Fish and Game (CDFG) may authorize an incidental "take," as defined in Fish and Game Code § 86, of state-listed species, approve appropriate mitigation measures, and assure adequate mitigation monitoring. Since no input has apparently been received from these agencies, it is premature and presumptuous to state that impacts to special-status species are less than significant and that no additional mitigation is necessary.

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Further, we would anticipate that the mitigation measures regarding allowable construction windows and construction in giant garter snake habitat may significantly affect project

construction scheduling and techniques. Once the USFWS issue its biological opinion, the Commission should revise the construction schedule and techniques to incorporate these agency's specific requirements and then re-evaluate the project for potential impacts.

O3-7  
(cont'd)

## SOUND ATTENUATION

### Page 3.10-10:

The list of sound sources does not include certain equipment at the compressor station or along the pipeline that will likely produce the loudest and most annoying noise. Depressurization, or blowdown valves can produce over 120 dB each time the valve activates. This is equivalent to a diesel locomotive whistle or a commercial jet plane during takeoff. Without proper mitigation, the sudden impulsive events of the pressure releases can be harmful to wildlife as well as humans. The radius of effect from these impulsive releases could be extended by atmospheric conditions. Loud, impulsive noises such as these create a higher level of annoyance than steady noise levels.

For the compressor station, it could be expected that pressure releases or blowdowns would occur from sectional piping anytime a compressor unit shuts down during normal operations, for routine maintenance of station piping and the transmission pipeline, and when abnormal operating conditions activate the Emergency Shut Down (ESD) valves. In addition to the compressor facility, pipeline blowdown valves will likely be located at the separation facility, the two PG&E interconnects where pig launchers are proposed, and, as noted above, at the two mainline sectionalizing valve lots. These valves and locations should be confirmed by the Applicant and the appropriate noise mitigation measures should be described.

O3-8

In making these comments, we differentiate between "blowdown" and "pressure safety" valves. The former, which are routinely used in the operation and maintenance of a pipeline/compressor facility should be, and normally are, fully muffled. The latter only activate when the pressure exceeds a preset level, the fire detection system is triggered or an equivalent potentially catastrophic event occurs that necessitates an immediate depressurization of the system. The safest method is to rapidly relieve the pressure directly to the atmosphere, not to gradually release pressure through a silencer. Accordingly, facility designers do not usually encumber pressure safety valves with the complexities potentially associated with sound attenuation systems. The EIR should distinguish between these two types of valves in prescribing mitigation measures and identifying unmitigable impacts.

## PROJECT PHASING

### Page 4-1:

The third paragraph cites the CEQA requirements to consider cumulative impacts of past, present, and probable future projects producing related or cumulative effects.

To begin with, it is unclear in the DEIR the exact scope of the currently proposed project and a discussion of future project expansion is conspicuously absent from the DEIR. For example, on

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page 2-19, three compressor engines totally 18,500 horsepower are proposed and illustrated on the accompanying site plan (figure 2-8). In the first discussion of alternative compressor station site locations on page 2-49, it states that the individual facilities and structures on the compressor site would be the same as those described for the proposed project. However, the site plan referenced in this paragraph (figure 2-13) illustrates two compressors proposed now and future expansion for two compressors. Subsequent environmental analysis on table 3.5-4 in the Air chapter assumes four compressor units at 4,445 horsepower each, for a total of 17,700 horsepower.

Nowhere in the document can we find a discussion relating to the changes in the number of compressors, nor their aggregate horsepower rating.

Further, there is no discussion of phasing compressor installation, which is what we have deduced from the "two now – two later" illustration and notation on the site plan (figure 2-8). Consequently, the project descriptions should be re-written to confirm the exact scope of the currently proposed project. An accurate project description is essential for an informative and legally sufficient EIR. (*County of Inyo v. City of Los Angeles*, 71 Cal.App.3d 185, 192-193 (1977).) In addition, a new section should be added to address future expansion possibilities (see *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.*, 47 Cal.3d 376 (1988)) or to note that the currently proposed project represents full development of the gas storage field.

Although the entire pipeline route to PG&E Line 401 is considered in this environmental analysis, it should be noted that validity of the analysis may diminish over time. The CPUC should specify the time frame within which its environmental findings would still be considered valid. If the Applicant does not initiate construction of the pipeline extension to Line 401 within that time frame, the CPUC should commit to conducting additional analysis to confirm the impacts and mitigation measures described in this document are still valid, or conduct subsequent environmental analysis as needed. Since the CEQA time frame for Master EIRs is five years (CEQA Guidelines § 15179), the CPUC should specify in its project approval that if the Applicant does not initiate construction of the Line 401 connection within five years of project approval, the Applicant must apply to the Commission for a verification that the previous CEQA analysis is still adequate for the proposed activity. (See CEQA Guidelines § 15179(a).)

## CONCLUSION

The purpose of an EIR is "to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment." (CEQA § 21061.) The purpose of preparing and issuing a DEIR for comment is to allow interested parties to point out errors or omissions in the DEIR that, if not corrected, would lead to a legally inadequate Final EIR. WGSJ has offered these comments in that spirit, and WGSJ respectfully urges the Commission to make the corrections and to undertake the studies and other actions needed to remedy the defects of the DEIR pointed out in these comments before certifying the Final EIR for the Lodi project.

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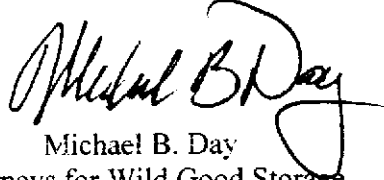
O3-10

Judith Iklé  
November 10, 1999  
Page 6.

Thank you for the opportunity to provide these comments, and please feel free to call me if you have any questions.

Very truly yours,

GOODIN, MACBRIDE,  
SQUERI, RITCHIE & DAY, LLP

By   
Michael B. Day  
Attorneys for Wild Good Storage

cc: Philip H. Davies  
Judith Iklé  
Dan L. Carroll

2715/009/X06059-1

**Responses to Comments from Goodin, MacBride, Squeri, Ritchie & Day, LLP— Michael B. Day**

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- O3-1. The CPUC contracted with an independent consulting firm to evaluate information regarding costs and electricity-driven compressors. See Chapter 2, “Clarification of Major Issues”, of this final EIR.
- O3-2. The CPUC recognizes that electrical power lines are reliable. The second bulleted item on page 2-8 of the draft EIR was referring to the reliability of power supply. The Applicant contends that times of peak electrical demand would occur concurrently with peak natural gas demands (either during the winter to meet heating or electrical generation demand or during the summer to meet electrical generation demand). PG&E had indicated to the Applicant that power to the project could be curtailed during peak-demand periods. Consequently, using electrically driven compressors may inhibit the Applicant from responding to its customer’s needs during critical demand periods, thus defeating the purpose of the project. The state CEQA guidelines (Section 15126.6) permit a lead agency to eliminate from detailed consideration project alternatives that do not meet the basic project objectives. See Chapter 2, “Clarification of Major Issues”, of this final EIR for more information regarding electricity-driven compressors.
- O3-3. The CPUC contracted with an independent consulting firm to evaluate information regarding costs and electricity-driven compressors. See Chapter 2, “Clarification of Major Issues”, of this final EIR.
- O3-4. See Chapter 2, “Clarification of Major Issues”, of this final EIR, for additional information on the feasibility of electric drivers. It is important to note that the use of electric drivers does not necessarily substantially reduce overall emissions. Electricity must be produced, and while electricity may be produced from hydroelectric facilities or other non-fossil fuel sources, it is also produced by the combustion of natural gas. Thus, use of electric drivers may only relocate air emissions, not eliminate them. In addition, the CPUC believes that it is appropriate to rely on the regulations of the relevant agency with jurisdiction over the resources in question. The entire purpose of the air pollution control district is to establish appropriate regulations and requirements to govern the emission of air pollutants within the district. The district has established stringent criteria to minimize air emissions and is the appropriate and expert agency with jurisdiction over the project.
- O3-5. The commenter is correct in noting that the transmission pipeline will require two sectionalization valves, unless otherwise determined by the DOT administrator, and blowdown facilities for each isolated segment. Specific locations for each of these facilities have not yet been determined. Due to the uncertainty of which project alternative, if any, would be approved by the CPUC, the detailed pipeline engineering has not been completed. Throughout the draft EIR, it is stated that the pipeline would be constructed in accordance with 49 CFR 192. The specific location of these facilities along the pipeline would not alter their environmental impacts as identified in the draft EIR.

- O3-6. The comment concerns the potential use of microwave or radio communication between the well pad sites and the compressor facility for safety valve actuation. If radios or microwaves are used for remote control activation of the well control valves, a small whip antennae or small dish would be used. These elements would be diminutive in nature compared to the size and scale of the wells and well valves. Therefore, no change to the visual impact assessment of well pad development is required.
- O3-7. See comments from the California Department of Fish and Game (DFG) (letter S4). The CPUC has determined that the mitigation measures proposed by the Applicant along with measures described in Section 3.7 of the draft EIR are sufficient to reduce any potential impacts to less-than-significant levels. The agencies mentioned in this comment were invited to attend scoping meetings, but declined to do so. Should the Applicant be required to consult with the U.S. Fish and Wildlife Service or DFG, the Applicant will be required to comply with the terms of such consultation. CEQA does not require that such consultation be completed prior to completing the CEQA process, nor does it require that the CPUC incorporate such requirements into its approval process.
- O3-8. Additional information and clarification regarding the release of gas to the atmosphere and measures to attenuate sound and odor are described in Chapter 2, “Clarification of Major Issues”, of the final EIR.
- O3-9. The comment concerns the scope of the proposed project and the potential for phasing. Specifically, the commenter notes that Figure 2-13, "Alternate Compressor Facility Site Plan", depicts two proposed compressor engines to be developed initially and two engines to be developed in the future. The use of the term “future expansion” in relationship to the two additional compressor units may cause confusion regarding the scope of the project being analyzed. Although the alternate compressor site would be developed in two phases, the EIR analyzes the potential impacts of the alternate compressor facility based on full build-out, which includes the construction and operation of four compressor units. There is no future construction planned for the compressor facility that is not analyzed in the draft EIR.

During preparation of the draft EIR, LGS has been refining the project engineering, specifically with regards to the alternate compressor facility (a component of the preferred alternative), to reduce air emissions and noise. Current engineering designs for this facility call for four compressor units at 4,445 horsepower each, for a combined total of 17,700 horsepower. Therefore, the alternate compressor facility would be similar to the compressor facility associated with the proposed project.

- O3-10. CEQA does not specify time limits on environmental analysis. If the project were delayed or conditions changed substantially from those analyzed in the EIR, additional analysis could be required. The passage of time, in and of itself, does not justify reverification of the environmental analysis.



# Letter O4

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November 10, 1999

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Ms. Judith Ikle  
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Re: Comments on Draft Environmental Impact Report  
Lodi Gas Storage, LLC's Application for Certificate of Public Convenience And  
Necessity for Construction and Operation of Gas Storage Facilities  
Application 98-11-012

Dear Ms. Ikle:

The following comments are made on behalf of interested parties, Todd and Maureen Williams, David and Mary Perry, Trustees Of The Perry Family Trust and Reba Turnbull, Trustee Of The Turnbull Family Trust to the Draft Environmental Impact Report (Draft EIR) for Lodi Gas Storage, LLC's (LGS) Application for Certificate of Public Convenience And Necessity for Construction and Operation of Gas Storage Facilities - Application 98-11-012.

## GENERAL COMMENTS

The California Environmental Quality Act ("CEQA"), Public Resources Code sections 21000, *et seq.*, mandates that an environmental impact report be prepared and certified before approval by a public agency of any project that may have a significant effect on the environment. (Pub. Res. Code § 21151(a).) It is well established that the purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effects which a proposed project is likely to have on the environment, which is defined as the existing physical conditions in the area affected. (Pub. Res. Code §§ 21060.5 and 21061; *Environmental Planning Information Counsel v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354.)

The California Supreme Court summarized both the purpose and importance of an adequate EIR in *Laurel Heights Improvements Association of San Francisco v. Regents of the University of California* (1988) 47 Cal.3d 376, 392, where the court stated:

The EIR is the primary means of achieving the Legislature's considered declaration that it is the policy of the state to "take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state." [Citation.] The EIR is therefore "the heart of CEQA." [Citations.] An EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." [Citations.] The EIR is also intended "to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its actions." [Citations.] Because the EIR must be certified or rejected by public officials, it is a document of accountability. If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment, but also informed self-government.

This Draft EIR fails miserably to comply with the legal requirements of CEQA and the reported case law interpreting CEQA and the State's adopted CEQA Guidelines. The Draft EIR does not provide the decision-makers or the public with an understanding of the consequences of the implementation of the project, and cannot ensure that mitigation will be available or effective to mitigate the significant adverse environmental effects identified.

The Draft EIR also lacks detailed information concerning the basis of its conclusions. In many circumstances, there is no explanation concerning the basis for conclusions that particular alternatives will not have a significant effect on the environment or the basis that a particular effect is not significant. The omission of such details makes the Draft EIR inadequate. For instance, it is concluded that impacting three residences as opposed to six residences is justification for the siting of the Compressor Facility southwest of the Lind Airport instead of northeast of Highway 99.

#### **The Draft EIR Fails to Consider a Reasonable Range of Alternatives**

CEQA requires that public agencies include in an environmental impact report a range of reasonable alternatives to the project, and the environmental impact report must evaluate the comparative merits of the alternatives. (Pub. Res. Code § 21100(b)(2)(4); CEQA Guidelines § 15126(d).) The range of potential alternatives to the proposed project must include those that could feasibly accomplish the basic purposes of the project and could avoid or substantially lessen one or more of the project's significant effects (CEQA Guidelines § 15126(d)(2)), and must include sufficient information about each to allow meaningful evaluation, analysis and comparison.

One of the key factors in determining whether a reasonable range alternatives have been analyzed is whether the significant effects of the project would be avoided or substantially lessened by putting the project in **another location**. (CEQA Guidelines § 15126.6(f)(2)(A)). The Draft EIR recognizes that this is only the second application by a private company before the CPUC for a natural gas storage facility in the State of California. Unlike the already approved Wild Goose Storage Facility which is located in a remote, un-inhabitated area of Butte County, the LGS preferred alternative is in the heart of the prime agricultural land in the Central Valley and specifically located in the Lodi Wine Grape Appalachian. Unlike the Wild Goose Storage Facility, the LGS preferred alternative has at least 815 homes constituting more than 2000 people within a five-mile radius of the project, two grammar schools and countless workers. Unlike the Wild Goose Storage Facility, the LGS preferred alternative is next to the busiest airport in San Joaquin County with the largest recreational skydiving facility in the western states where in 1994 alone, there were 6 parachuting accidents that resulted in death or serious injury and several plane crashes. CEQA mandates that a reasonable range of alternatives be analyzed. The alternatives presented in this Draft EIR fall far short of presenting a reasonable range of potential alternatives. In fact, none of the proposed alternatives propose constructing the project outside of the zone of residential development.

O4-1

#### **The No Project Analysis Contained in the Draft EIR is Insufficient**

CEQA requires the inclusion of a “no project” analysis which discusses the existing conditions as well as what is reasonably expected to occur in the foreseeable future if the project were not approved. (CEQA Guidelines § 15126.6(e)(2)). The purpose of the “no project” alternative is to allow the decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the project. (CEQA Guidelines § 15126.6(e)(1)). If one of the objectives of the LGS project is to increase natural gas availability, then why is there no discussion of other currently available or feasible sources? Is there really a natural gas shortage or heavy demand? In analyzing the “no project” alternative, there must be a discussion of the existing and future projects. The administrative record contains substantial information on other new “world class” natural gas reservoirs coming on in the near future that are expected to hold two trillion cubic feet of natural gas. This information must be included in the Draft EIR and failure to include it, makes this Draft EIR legally inadequate.

O4-2

#### **The Draft EIR Fails to Fully Evaluate Feasibility and Mitigation For Significant Effects**

CEQA requires that agencies deny approval of a project with significant adverse effects unless feasible mitigation measures are imposed which can substantially lessen such effects. (*Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41; *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 440-441.) To

O4-3

effectuate this requirement, an environmental impact report's analysis of impacts must be sufficiently detailed and precise to ensure that the mitigation measures imposed will, in fact, minimize the significant effects of the proposed project. (Pub. Res. Code § 21100(b)(3).) A generalized, abstract statement of expected impacts will not suffice. For each significant effect, the EIR must identify specific mitigation measures. Where several potential mitigation measures are available, each should be discussed separately; and the reasons for choosing one over the others should be stated. If the inclusion of such a measure would itself create new significant effects, these too must be discussed. (CEQA Guidelines, 15126, Subd. (c); *Stevens v. City of Glendale* (2d Dist. 21981) 125 Cal.App.3d 986, 995-996).

The Draft EIR is seriously flawed with regard to mitigation measures. The mitigation measures mentioned are not discussed thoroughly. They are listed in summary fashion with no discussion of their feasibility or effectiveness. Moreover, the selected mitigation measures failed to adequately mitigate the adverse impacts identified. Many of the mitigation measures listed would have serious adverse environmental consequences that are not discussed as required by CEQA law. For instance, to eliminate the inconsistency with the Airport Land Use Plan, the Draft EIR suggests that it simply be revised. Elimination of the significant adverse affect by deleting the inconsistency from the adopted plan is not mitigation, it is simply lunacy. What has changed since 1993 to make construction of a natural gas switching facility and pipeline and 30-35 feet facilities in the transitional, inner approach and climbout zone any less threatening so as to not prohibit the construction in those zones? A detailed discussion of the inadequate mitigation measures is discussed below under each of the affected resource areas.

O4-3  
(cont'd)

## **SPECIFIC COMMENTS ON THE DRAFT EIR**

### **Chapter 3.1 Land Use Planning and Agricultural Resources:**

On Page 3.1.6 the County's policy on extractive resources provides that the County shall only permit the development of its natural gas if such development protects public health and safety. The Draft EIR must explain how this policy is not violated when the Compressor Facility is sited within 1150 feet of the centerline of the runway in direct violation of the Airport Land Use Plan that is designed to prevent hazards such as this.

O4-4

#### Potential Inconsistency with Plans and Policies

Under all of the proposed alternatives, the significant environmental effect of locating the Compressor Facility near the Lind Airport is recognized because of the conflict with the Airport Land Use Plan. What is mind boggling is that in the CPUC selection of the preferred alternative for the route of the pipeline, a once "infeasible measure" (as determined by LGS) was deemed feasible by the CPUC in order to meet county and Delta Protection Commission land use policies. Why does this rationale not apply to

O4-5

locating the Compressor Facility? The land use policies contained in the San Joaquin County Council of Governments's Airport Land Use Plan are clear:

1. The guidelines were developed to ensure that no new land uses pose a hazard to aircraft or to the health or safety of persons on the ground within the airport's area of influence. Airport land use guidelines control both the heights of structures and the type of land use.
2. The guidelines specifically prohibit electrical and natural gas generation and switching, oil and gas extraction, natural gas and petroleum pipelines and petroleum and chemical storage uses within the inner approach, climbout and transitional zones.

O4-5

The preferred alternative for the Compressor Facility has half of an acre of the Compressor Facility located in the transitional zone. Isn't the goal of the guidelines to reduce hazards to aircraft? It appears that there will be at least three (3) buildings between 30-35 feet high within 1150 feet from the runway centerline. How is this not going to interfere with the view of pilots?

O4-6

1750 feet of the pipeline would run under the transitional zone, 1200 feet of pipeline would run under the inner approach and climbout zone and the pipeline would pass within 1700 feet of the runway centerline. The administrative record is replete with evidence of the vast number of parachuting and plane crashes that have occurred in the area. Placing these structures and pipeline in the proposed location creates a tremendous risk to the health and safety to the people utilizing the airport and the people working and living in the area. The proposed mitigation is simply to amend the Airport Land Use Plan to eliminate the prohibition. This is not mitigation, this is absurdity. An adequate mitigation measure cannot be modifying an existing plan to eliminate conflict, such a suggestion directly contravenes the legal requirements of CEQA.

O4-7

The Compressor Facility will be emitting exhaust gases from the four compressor engines, two glycol re-boilers and the routine venting of natural gas that occur during pressure buildup, facility maintenance and emergency situations. The compressor exhaust will be exiting at a temperature of 838.13 degrees Fahrenheit, while the glycol re-boiler's exhaust will be exiting at a temperature of 998.33 degrees Fahrenheit. How will these exhaust temperatures affect the airport traffic? Will these extreme levels affect air traffic?

O4-8

Finally, the Compressor Facility, while dangerous itself due to air pollution, venting of gas, noise and the inevitable potential for human error, it is truly unconscionable to place a dangerous explosive time bomb 1150 feet from the center of the runway at San Joaquin County's busiest airport. There is no mitigation sufficient to offset the adverse environmental impact of locating the Compressor Facility at the Lind Airport. Thus, it

O4-9

appears that there are only two viable options available to remedy this significant adverse environment effect: do not do the Project or locate the Compressor Facility elsewhere.

O4-9  
(cont'd)

Temporary Disruption of Agricultural Production during Construction:

Under each of the proposed alternatives, there are varying degrees of impact to agricultural land by construction of the pipeline. However, the Draft EIR is deficient in its analysis of the impacts associated with taking in excess of 200 acres of prime farmland, including highly productive vineyards out of production. The mitigation measure states that impact on vineyard operations would be reduced to a level of less than significant if construction is avoided in the harvesting season. One can only assume that disruption during construction requires the removal of certain portions of vineyards that lie in the pipeline route. How can simply avoiding a time mitigate for the permanent loss of portions of a vineyard? Where is the discussion of the impacts associated with the loss of vineyards? Simply replanting cannot make a farmer or the environment whole, because of the time it takes for the newly planted vines to become productive.

O4-10

**Chapter 3.3 Geology, Soil and Paleontology**

San Joaquin County General Plan policy to protect public health and safety states the risk to humans and property from seismic and geologic hazards shall be considered in determining the location and intensity of development and the conditions under which it may occur. The proposed pipeline route will traverse areas where substantial subsidence occurs. The only mitigation measure suggested is to continue to monitor depths once the pipeline is installed and should a problem arise, LGS has one year to remedy. How will continually reburying the pipeline impact the pipeline integrity? How will delays in excess of one year after subsidence occurs impact pipeline integrity? How will burying the pipeline in land subject to subsidence affect the neighboring levee stability? These common sense questions must be addressed in the EIR.

O4-11

**Chapter 3.4 Hydrology**

Impact 3.4-6: Exposure of Structures to a Significant Risk of Loss Involving Flooding Related to Delta Island Flooding

The Draft EIR recognizes that portions of the proposed pipeline in all of the alternatives lies within the 100-year floodplain. Because of this location, the pipeline could be damaged if floodwaters erode the soil cover. Additionally, because the pipeline is lighter than the soil materials it displaces, the pipeline may float out of the trench. Either one of these scenarios may cause the pipeline to rupture and release gas to the atmosphere. The mitigation measure suggests using concrete coated pipe or concrete pillars in all areas subject to the 100-year flood, where saturated soils would not prevent the pipeline from floating. Where are the scientific studies to confirm that the use of concrete coated pipe

O4-12

will prevent the pipeline from floating? Until such studies are performed, this mitigation measure does not mitigate the significant threat to pipeline integrity caused by Delta Island flooding probability.

O4-12  
(cont'd)

### **Chapter 3.5 Air Quality**

Table 3.5-2 provides a summary of the Air Quality Monitoring Data. Why are there no monitoring stations for Sulfur Dioxide (SO<sub>2</sub>)? More importantly, how accurate will the monitoring of this project be when the nearest monitoring stations are located on Hazelton Avenue in Stockton and in Elk Grove, both in excess of 20 miles from the proposed LGS facilities?

O4-13

On page 3.5-7 there is a general discussion of the San Joaquin Air District's requirement to use best available control technology. The Draft EIR states that LGS must select the most stringent applicable technology for the air district's control technology guidelines unless they can justify through a cost analysis that the technology is not cost effective. However, the San Joaquin Air District permits use of cost effectiveness to justify a less stringent technology only for technologies that have not yet been installed in the San Joaquin Valley. What BACT is LGS proposing to use? Is it the most stringent? If not, why not? Was a cost analysis prepared to justify a less stringent technology? Are any other San Joaquin Valley facilities, e.g., McDonald Island utilizing more stringent technology? This section is simply incomplete, as there is no analysis of what LGS is proposing and how it compares with other available technologies.

O4-14

#### Impact 3.5-3: Construction-Related ROG and NO<sub>x</sub> Emissions in Sacramento County

The Draft EIR states that reactive organic gases (ROG) emissions of 594 pounds per day and NO<sub>x</sub> emissions of 767 pounds per day in Sacramento County would occur during construction and are significant environmental impacts because they exceed the Sacramento Air District's significance threshold of 85 pounds per day. The Draft EIR then concludes that the impact is significant and unavoidable because no mitigation measure is available to reduce the impact to less than significant. Because there are no feasible mitigation measures available to reduce this effect to less than significant and absent a declaration of some overriding consideration, CEQA requires the CPUC to deny approval of the LGS project. (*Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41; *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 440-441.)

O4-15

#### Impact 3.5-4: Controlled Emissions of NO<sub>x</sub> and ROG during Project Operations That Exceed Emission Offset Trigger Thresholds

The San Joaquin Valley is in a state of serious nonattainment for ozone. Table 3.5-4 estimates the emission levels from LGS's proposed facilities. This table confirms that

O4-16

even with the utilization of BACT, two of the emission criteria will exceed the legal levels permitted by the San Joaquin Valley Air District, namely, the ozone precursors nitrogen oxides (NOx) and reactive organic gases (ROG). The Draft EIR suggests as mitigation obtaining emissions offsets for NOx and ROG. Simply obtaining offsets at a place to be determined does not adequately mitigate the direct adverse environmental effects caused by the facilities. How can obtaining an emission credit 15 miles away help the immediate area.

Moreover, many questions are left unanswered by the Draft EIR environmental analysis. How will these emissions affect the residents living in the area? NOx can injure plants, animals and affect human health. How will obtaining emissions offsets 15 miles away remedy the pollution emanating from the LGS facilities? How will the vineyards be impacted by these emissions? Until such analysis is completed, this Draft EIR fails to inform the decision-makers of the real environmental risks and affects of the proposed project.

O4-16

Impact 3.5-5: Emission of Toxic Air Pollutants from Natural Gas-Fired Equipment

Table 3.5-5 shows the staggering emission levels of toxic air pollutants from the natural gas combustion turbines and the glycol reboilers. These emissions have the potential to cause health impacts based on the San Joaquin Air District's thresholds of significance for toxic compounds, but yet the Draft EIR concludes that the cancer risk of 3.4 per million for formaldehyde is not worth mitigation. In reviewing the table, two questions come to mind. First, why is the plant presumed to operate at a 40% factor, instead of 100%? The description of operations of the LGS facilities contemplated operating 7 days a week, 100% of the time. How would this analysis of the toxic air pollution emissions be changed if based on the plant operating 100% time factor? Secondly, who is Ron Richards? Does he manufacture glycol boilers? Why are not manufacturer's specifications utilized to conduct this very important analysis?

O4-17

Impact 3.5-6: Potential for Objectionable Odors

There are a number of references throughout the Draft EIR to odors that will result from operation of the facilities. In particular, gases will be emitted regularly as part of the regular maintenance process of "venting." Why is this not discussed in this section? Why does it state that leaks will be unlikely, when in other sections it is part of regular maintenance? This Draft EIR must identify all significant environmental effects and be properly mitigated, or else CEQA would dictate that the CPUC deny approval of the project.

O4-18

Finally, how would the air quality analysis in this entire Chapter change if the San Joaquin Valley is re-characterized into a "severe" nonattainment for ozone, instead of its current "serious" status? Several days ago, it was announced that because the San

O4-19



Joaquin Valley failed to meet the federal standards (27 days this year they were in nonattainment for ozone), the San Joaquin Valley would be reclassified into the "severe" category for nonattainment. Will LGS be able to construct its facilities that emit 34.9 tons of NOx per year, 41.2 tons per year of CO emissions and ROG emissions of 12.2 tons per year? Will additional requirements be imposed? Will emission offsets be available to mitigate for the air pollution?

O4-19

### **Chapter 3.7 Biological Resources**

#### **Impact 3.7-2: Potential Introduction or Spread of Noxious and Invasive Weeds and Pests During Construction Activities**

The Draft EIR recognizes that construction activities could result in the introduction or spread of noxious weeds or pests into currently uninfested areas, potentially resulting in effects on commercially important agricultural. The Draft EIR concludes that this impact is significant. However, in the mitigation measure proposed to control the dispersal of noxious and invasive weeds and pests, there is no provision for cleaning the equipment from site to site. As the excavation occurs along the 33-mile stretch of pipeline, a chief concern is the spreading of dangerous diseases found in vineyards. The mitigation measures propose testing for phylloxera and ensuring that if discovered, no soil will migrate off site. However, if the equipment is not cleaned onsite residual soil will remain on the equipment that may spread diseases. Moreover, there are other dangerous diseases that must be tested to ensure the continued viability of the agricultural production, including, nematodes, oak root fungus and fan leaf virus.

O4-20

### **Chapter 3.9 Public Health and Safety**

On page 3.9-4 there is a description of reportable incidents caused from natural gas transmission pipelines. However, no where in this Chapter is there a description of the historical accidents occurring at Compressor or Separation facilities. All of the hazardous materials will be stored at these locations and without an analysis of the potential risk, it is impossible for the decision-makers to know whether the environmental risk is significant.

O4-21

#### **Impact 3.9-3: Potential Public Health Hazard Associated with Pipeline Rupture that Could Lead to an Explosion Resulting in Property Damage or Fatalities**

*In this discussion the Draft EIR misstates the applicable facts in drawing its conclusion that location of the Compressor Facility next to the Lind Airport will not have a significant effect on the environment. First, there is no recognition that the siting of the Compressor Facility at this location is in direct conflict with the Airport Land Use Plan. Specifically, the Airport Land Use Plan expressly prohibits electrical and natural gas generation and switching, oil and gas extraction, natural gas and petroleum pipelines and*

O4-22

petroleum and chemical storage uses within the inner approach, climbout and transitional zones.

The Draft EIR states that it would be in compliance with all applicable safety regulations. How can this be true when locating the Compressor Facility directly violates the Airport Land Use Plan? Moreover, where is the scientific data to confirm that a skydiving or aircraft accident would unlikely have a substantial effect on the facilities? As was discussed above, the administrative record is replete with evidence of the great number of consumers using the airport which has resulted in a significant amount of accidents. Failure to recognize this as a significant environmental impact under the CEQA significance criteria cannot be justified.

O4-22  
(cont'd)

### **Chapter 3.11 Public Services and Socioeconomics**

On page 3.11-2 there is a statement that LGS has agreed to familiarize fire department personnel with project facilities; assist in training local fire department personnel to respond to emergencies involving natural gas facilities; and provide equipment, as necessary to respond to potential emergencies at the project facilities. The potential threat of significant property damage and loss of life from construction of the proposed project necessitates a thorough discussion of the training and equipment that will be provided. Most of the fire districts responsible for fire protection in this area have very limited funds and rely on volunteers. Therefore, it is essential that the Draft EIR's analysis of whether the risk associated with construction of the proposed project will increase the demand for services include more than a bare conclusion that LGS's provision of unspecified, unregulated information, training and equipment offsets any such risk.

O4-23

### **Chapter 3.12 Visual Resources**

One of the significance criteria utilized to determine whether the project will have a significant effect is whether the project results in "degradation of the existing visual character or quality of the site and its surrounding area." Clearly, construction of a compressor building, four coolant fans and exhaust stacks, and an office, control room and maintenance facility with maximum height of between 30 and 35 feet severely degrades the existing visual character of the surrounding area.

The mitigation measure proposes implementing a landscaping plan to reduce this enormous obstruction. Simply planting a few young trees around the five-acre parcel does nothing in the short term for mitigation and will likely not shield the obstruction in the long term. The mitigation measure proposed is ineffective at mitigating the significant environmental effect caused by the location of the Compressor Facility. Much more must be done to meet the legal requirements of CEQA.

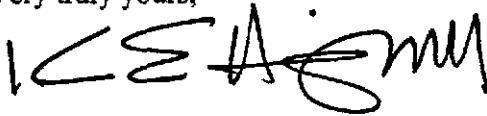
O4-24

**Conclusion**

This Draft EIR fails miserably at analyzing the significant effects caused by LGS's proposed project. Moreover, the mitigation measures identified by both LGS and the CPUC do not fully eliminate the significant environmental effects. As such, this Draft EIR cannot support the CPUC's decision on whether to permit the LGS project to proceed.

O4-25

Very truly yours,



KARNA E. HARRIGFELD  
Attorney-at-Law

KEH:des

cc: Todd and Maureen Williams  
Julia Green, San Joaquin County Council of Governments  
David and Mary Perry  
Ann Trowbridge, Esq.

## Responses to Comments from Herum, Crabtree, Brown, Dyer, Zolezzi, Terpstra—Karna E. Harrigfeld

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- O4-1. The draft EIR adequately evaluated a reasonable range of alternatives. The alternatives evaluation in the draft EIR considers the project as a whole and examined substantially different alternatives in an equal level of detail, which is well beyond the level of detail required by CEQA. Variations of alternatives including alternative gas storage sites and alternative sources of natural gas supply were not considered in detail in the EIR because they were determined to be infeasible and because their implementation is remote and speculative.
- O4-2. As clearly described on page 1-2 of the draft EIR, even with the tripling of pipeline capacity into California over the last 15 years, as recently as last winter (1998-1999), the state experienced more than 10 days of natural gas shortages, which forced some fossil-fueled power plants in the state to switch to fuel oil to fire boilers. While there may be other projects proposed within California under the recent state policies, it is important to note that the concern is with the inability to bring sufficient gas into the state during extended cold spells because of limited pipeline capacity; therefore, additional storage in other parts of the country or in Canada does not alleviate this concern.

Constructing additional high-capacity pipelines to increase the peak pipeline capacity may not be a cost-effective solution. This additional capacity is only needed during extreme weather conditions and therefore is not necessary during much of the year, and constructing large diameter (42- 48-inch) pipelines throughout the state has substantial environmental consequences.

The CPUC believes that the analysis of the no-project alternative is appropriate. The analysis does not assume that the project is beneficial. In fact, the opposite is true. Because it is difficult to quantify such effects, the no-project alternative discussion in the draft EIR does not take into account that increased natural gas storage in California will ultimately reduce the use of other fuels during periods of high demand, thereby reducing harmful air emissions; however, because of the complex nature of the energy market, the EIR does not attempt to justify the project on this basis. Therefore, the no-project alternative discussion in the EIR only discusses the fact that if selected, the project would not be constructed and none of the environmental impacts associated with the action alternatives would result.

- O4-3. The CPUC believes that the impact analysis and discussion of mitigation measures is adequate. The CPUC is not aware that any of the mitigation measures as described would have “serious environmental consequences” and the commenter provides only one example, which is addressed below.

Based on discussions with the Airport Land Use Commission staff and as described in the draft EIR, the application of the Airport Land Use Plan to the proposed project facilities is somewhat unclear. The CPUC has determined, based on available information, that the

proposed project facilities are generally consistent with the intent of the plan, which is to ensure public safety and to avoid constraints to airport operations; however, the Airport Land Use Commission is the appropriate agency to formally determine whether the project facilities are consistent with the plan and the airport commission has jurisdiction and authority over the project as a responsible agency. See Chapter 2, “Clarification of Major Issues”, for more detailed information on the Airport Land Use Plan. It should be noted that the Airport Land Use Commission did not comment on the draft EIR.

During preparation of the draft EIR, the CPUC reviewed the Airport Land Use Plan (ALUP). The CPUC understands that the ALUP was developed to limit new aboveground facilities that would be a hazard to aviation (i.e., obstruct view or encroaches into the Federal Aviation Administration [FAA] mandated control surfaces) or that would be a hazard to surrounding land uses in the event of a crash. The ALUP does not regulate land uses that existed within the plan area (i.e. propane distribution facility at SR 99 and Peltier Road, aboveground or underground fuel storage tanks, existing PG&E natural gas distribution lines, etc.) before the plan was formulated.

Although a portion of the proposed and alternative pipeline facilities would cross the runway approach zones, the alternative compressor facility would not be located within the approach zones. Furthermore, since publication of the draft EIR, the Applicant has received a determination from the FAA that the alternate compressor site would not interfere with general aviation activities.

Although the ALUP specifically prohibits new natural gas pipelines, it could not be determined if that prohibition related to only aboveground pipelines or all pipelines. Because the ALUP provides a procedure for the Airport Land Use Commission to amend the plan and provisions for the County Board of Supervisors to override the ALUP, it is believed that the prohibitions are not absolutes, but rather planning considerations that can be evaluated on a project by project basis. Given the air traffic (mainly light aircraft) at Lodi Airport and the minimum pipeline burial depth of 4 feet, the pipeline would be safe from aircraft crash damage; modifying the ALUP would be appropriate mitigation to eliminate the policy conflict.

O4-4. Although the project facilities are located partially within areas under the jurisdiction of the Airport Land Use Commission, the compressor facility itself is on airport property, which is not regulated by the Airport Land Use Plan. Portions of the pipeline would pass within the approach zone. This potential conflict with the plan is addressed in Mitigation Measure 3.1-3, a revised version of which is presented in Chapter 3, “Revisions to the Draft EIR”. The final determination of whether the facilities conflict with the plan rests with the Airport Land Use Commission.

O4-5. See response to comment O4-3 above.

- O4-6. The alternate compressor facility would not be located within the runway approach zones. Since publication of the draft EIR, the Applicant has received a determination from the FAA that the alternate compressor site would not interfere with general aviation activities.
- O4-7. The pipeline would be buried a minimum depth of 4 feet below the ground and would be constructed of steel approximately one-half-inch thick. It is not possible that a falling parachutist could cause any significant damage to the ground surface, much less a buried pipeline. Similarly, nearly all of the usage of the Lind Airport is small aircraft. Such small aircraft are not considered likely to be able to damage the pipeline. The Applicant has received a determination from the Federal Aviation Administration indicating that the proposed project is consistent with airport operations. The San Joaquin Airport Land Use Commission will be requested to determine the consistency of the proposed project with the ALUP.
- O4-8. Since publication of the draft EIR, the Applicant has received a determination from the FAA that the alternative compressor site would not interfere with general aviation activities.
- O4-9. The comment concerns the location of the compressor facility in proximity to Lind Airport. As discussed in the draft EIR, Section 2.24, "Project-Specific Location Alternatives", alternative compressor facility sites were evaluated based on a variety of criteria including noise sensitivity, presence of biological resources, and compatibility of existing land uses among other criteria. Specifically, as discussed in the draft EIR, Section 3.1, "Land Use", the evaluation of the consistency of the proposed compressor facility with the ALUP recognizes that the siting of this facility at the orchard site conflicts with the ALUP. Mitigation identified to reduce the significance of this impact requires the Applicant to have the project reviewed by the Airport Land Use Commission to determine if the project is consistent with the ALUP. If the Airport Land Use Commission determines that the proposed project is consistent with the plan, the plan may be amended to allow the proposed facility. Alternatively, if the Airport Land Use Commission determines that the plan should not be amended, the facility will need to be relocated to another site that is compatible with the ALUP.
- O4-10. The only permanent loss of farmland associated with any of the alternatives is associated with permanent above-ground facilities including the PG&E interconnections, the compressor facility, the separator facility, and the wells. These facilities result in the permanent loss of approximately 10 acres of farmland, not 200 acres. All other lands will be returned to agricultural production; however, they will be disturbed temporarily. Because vine age is an important factor in wine production, vineyard productivity may be reduced temporarily. In addition, many of the lands crossed by the pipeline are not identified as prime or unique farmlands by the State of California Department of Conservation. As stated in Section 3.1, the alternatives result in less than 10 acres of permanent impacts on prime farmland and these impacts are less than significant. In the context of the total acreage of prime farmland in the area. Landowners would be compensated by the Applicant for the temporary loss of production.

O4-11. Because ground subsidence in the project area is a result of the oxidation of overlying soil materials there would be no adverse effect on the pipeline. As described on page 3.3-11 of the draft EIR, a one-year period to schedule replacement or reburial of the pipeline is allowed primarily to reduce impacts to agricultural activities. Because remediation would be required when monitoring shows that the pipeline has become shallower than 3.5 feet, at no time would the pipeline be shallower than DOT regulation requirements, even with current rates of subsidence in the Delta. This program would not affect the pipeline integrity.

Because the ground subsidence is occurring from the land surface, the pipeline would not affect adjacent levee stability. See Chapter 2, “Clarification of Major Issues”, of this final EIR for more detailed information regarding subsidence.

O4-12. The calculations needed to determine the thickness of concrete coating or frequency of concrete collars are common engineering tasks. Pipelines have been installed throughout the Delta using these measures to counteract buoyancy (see Mitigation Measure 3.4-1 in Chapter 3, “Revisions to the Draft EIR”, of this final EIR). As described on page 3.4-23 of the draft EIR, the Applicant must provide the CPUC with the necessary calculations before constructing of the pipeline.

O4-13. The comment concerns the proximity of air quality monitoring stations to the project site. As described in the last sentence of the sixth paragraph on page 3.5-4 of the draft EIR, there are no sulfur dioxide monitoring stations in the project area. The only sulfur dioxide monitoring stations within the San Joaquin Valley are located in the southern portion of the Valley and are primarily associated with oil and gas field operations. Currently, the entire state of California is in attainment for the California and federal sulfur dioxide ambient standards. Sulfur concentrations are extremely low in the natural gas that will be burned in the engine-driven compressors and the glycol dehydration reboilers as evidenced by the low emissions for these units shown in Table 3.5-4 of the draft EIR. Due to the low level of sulfur emissions that would be produced by this project, monitoring of sulfur dioxide is not required as mitigation for the project. In addition, the proposed mitigation measures for the project do not include ambient air quality monitoring for any other pollutants. The air quality permit that the San Joaquin Valley Unified Air Pollution Control District must issue prior to project operation may contain additional requirements such as air monitoring.

O4-14. This comment concerns the use of best available control technology (BACT). LGS is proposing to implement the following as part of best available control technology:

Natural gas compressors: combustion modifications and oxidation catalyst.

Glycol dehydration reboilers: low NO<sub>x</sub> burners and lean burn, low NO<sub>x</sub> emitting engines.

Emergency Generator: optimal engine tuning, detonation/timing controls, intercooler, and fuel/air controller.

Since these are considered BACT by the Applicant, they will be included in the permit application to the San Joaquin Valley Unified Air Pollution Control District. The Air District may, as part of the permit conditions for this project, require that additional emission controls be installed as part of BACT. If that were to occur, then the emission estimates included in the draft EIR overestimate the emissions and associated emissions offsets required for this project. LGS has prepared a cost analysis showing that using electric compressors in lieu of natural gas would not be feasible from an economics standpoint. The emission controls used at McDonald Island have not been investigated as part of this analysis; however, the Air District, in evaluating BACT as part of the permit application process, will examine BACT at other similar facilities, including McDonald Island.

- O4-15. The comment concerns the analysis of Impact 3.5-3, “Construction-related ROG and NO<sub>x</sub> emissions in Sacramento County”. The commenter notes that emissions of ROG and NO<sub>x</sub> during construction are identified in the EIR as significant because they exceed Sacramento County Air District’s significance threshold. Additionally, the commenter concurs with the conclusion of this analysis which indicates that the impact is significant and unavoidable because no mitigation is available to reduce this impact to a less-than-significant level. As required by CEQA, a statement of overriding consideration must be issued by the lead agency prior to approving a project with significant and unavoidable impacts.
  
- O4-16. Ozone is a regional rather than a microscale pollutant. Emissions of ROG and NO<sub>x</sub> by the proposed project will result in increases in regional ozone concentrations downwind of the project rather than in the immediate vicinity of the project site. Emissions of ozone precursors (ROG and NO<sub>x</sub>) undergo a chemical reaction in the presence of sunlight, forming ozone several miles downwind of the emission points. Consequently, emission offsets are an effective way to reduce regional ozone concentrations. The impacts of ozone on grape yields is discussed in the draft EIR on page 3.5-2. Grapes are not susceptible to NO<sub>2</sub>, according to the U.S. EPA manual, “Diagnosing Vegetation Injury Caused by Air Pollution” (EPA-450/3-78-005).

Additionally, in response to this comment “hot spot” modeling of NO<sub>2</sub> was conducted to estimate local concentrations of NO<sub>2</sub> during project operation. Using the results of the health risk assessment, a worse case estimate of NO<sub>2</sub> concentrations was developed assuming that all NO<sub>x</sub> is NO<sub>2</sub>, which is not the case. These estimates were then compared to the state and federal NO<sub>2</sub> standards. The results of the NO<sub>2</sub> modeling for the project and related standards are presented below.

1-hour worst case concentration:	7.1 micrograms/cubic meter
1-hour California standard:	470 micrograms/cubic meter
Annual worst case concentration:	0.71 micrograms/cubic meter
Annual federal standard	100 micrograms/cubic meter



As indicated by these screening-level modeling results, the project would not approach, much less exceed, either the 1-hour California standard or the annual federal standard.

The same procedures cannot be used to estimate local concentrations of ROG. Because they are “reactive” organic gases, ROG concentrations can’t be accurately estimated with nonreactive models, such as SCREEN3 (the model used to conduct the health risk assessment). Additionally, there are no ambient standards for ROG, so even if accurate modeling methodology was available, the resulting information would be meaningless without comparison to adopted standards. It is also important to note that local concentrations of ROG were indirectly addressed in the screening level health risk analysis in that all of the constituents of ROG were considered a potential health risk and analyzed as part of the health risk analysis. Constituents of ROG were found not to present a health risk to nearby residents.

- O4-17. The health risk assessment shows that even with extremely conservative dispersion modeling the proposed project would not result in a significant health risk, which is defined as a risk that exceeds the cancer and noncancer thresholds established by the San Joaquin Valley Unified Air Pollution Control District. The San Joaquin Valley Air District’s Threshold for significance for toxic air contaminants is 10 per million, and the calculated cancer risk from the maldelyde from the project is 3.4 per million – well below that threshold.

LGS does plan to use 100% of the capacity of the compressor facility when required (e.g., when LGS needs to flow the maximum flowrate of gas within the minimum suction pressure and maximum discharge pressure); however, the load factor is different from engine capacity. While the term “load factor” refers to operating restrictions which could result in the occasional operation of the compressors at a maximum capacity, it is likely that most of the time conditions would be such that the compressors would not be operating at maximum capacity. LGS has modeled the proposed system and has determined that the predicted load factor for the compressors is somewhat less than 40%. This implies that the compressors operate at less than capacity some of the time, at capacity some of the time, and are idle some of the time. Consequently, the emission estimates for the proposed project assume a 40% load factor. If, during a one year period, fuel usage reaches an amount close to 40% load factor, the Air District will require LGS to reduce or stop operation of the engines for the remainder of the year.

If the plant were to operate 100% of the time, the annual air emissions from the plant would increase and Tables 3.5-4 and 3.5-5 would have to be altered to show higher annual emissions. The acute health hazard portion of the risk assessment would not change because acute health risks are based on estimates of worst case hourly emissions associated with the project. Chronic health hazards and cancer risk estimates would increase as a result of increased load factors. The San Joaquin Valley Air District will conduct an independent health risk assessment prior to issuing a permit for this project.

- O4-18. The comment concerns the potential for odors related to the venting of gas into the atmosphere. The applicant has determined that all normal venting operations will be “flared” or burned to reduce odors. This issue is discussed in Chapter 2, “Clarification of Major Issues”, of this final EIR.
- O4-19. The commenter is correct in noting that the San Joaquin Valley Air Basin will be redesignated by the U.S. EPA from a serious to a severe ozone nonattainment area. This redesignation is expected to occur no later than May 2000. As a severe ozone nonattainment area, the San Joaquin Valley Unified Air Pollution Control District would have until 2005 to implement measures that will bring the Air Basin into attainment with the 1-hour federal ozone standards. Under the new designation, the project Applicant would still be able to construct its proposed facilities. This new designation would require the Air District to develop and implement more stringent emission controls for stationary and area sources and would increase the offset requirements from a ratio of 1.2 to 1, to a ratio of 1.3 to 1 for offsets obtained within 15 miles of a source; however, it’s unclear whether the proposed project will be permitted prior to the redesignation from a serious to a severe area. If emission offsets are unavailable, then the project Applicant would be unable to build the proposed facility.
- O4-20. The text of Mitigation Measure 3.7-2 has been revised to include the washing of equipment between vineyards. See Chapter 3, “Revisions to the Draft EIR”, of this final EIR, for the revised text of this mitigation measure.
- O4-21. U.S. Department of Transportation - Office of Pipeline Safety records do not contain information regarding incidents occurring specifically at compressor or separation facilities. No alternative sources for this information have been identified.

As described on Page 3.9-8 of the draft EIR, several programs are incorporated into the project description to protect health and safety with regard to hazardous materials. These programs are required by law and must be approved by the responsible agencies. The CPUC believes that these agencies can adequately enforce the appropriate regulations dealing with hazardous materials.

Furthermore, it would be speculative to attempt to identify what the results of an accident at the proposed facility would, could, or might have on the environment. The state CEQA guidelines expressly caution against speculative analyses; however, because of the numerous permitted facilities throughout California and the nation, it can be reasonably assumed that the risk to the environment is acceptable to the regulatory agencies.

- O4-22. See response to Comment O4-3.
- O4-23. This comment concerns the need for additional training and equipment for potential impacts associated with project construction. Impact 3.11-1 analyzes the temporary increase in the demand for emergency response services during project construction. Because the project would be constructed in compliance with Occupational Safety and Health Administration

(OSHA) and Cal-OSHA standards, the risk of injury or property damage associated with construction would be no greater than other construction activities in the area. Additionally, LGS is continuing to work with local fire districts to develop a disaster contingency plan in accordance with California Administrative Code.

- O4-24. The comment concerns the adequacy of Mitigation Measure 3.12-1, “Develop and implement landscaping and site design”, to reduce the visual impact of the project facilities. It is important to note that in addition to Mitigation Measure 3.12-1, LGS has incorporated a variety of measures into the proposed project and project alternatives to minimize the disturbance of the visual character of the area. These measures are listed on pages 3.12-6 and 3.12-7 of the draft EIR and include minimizing the construction footprint of facilities to reduce contrast between exposed soil and vegetated areas, minimizing the clearing of vegetation and trees, and painting facilities with non-glare earthtone colors to blend with the surrounding landscape among other measures.

Mitigation Measure 3.12-1 requires that LGS, in consultation with San Joaquin County and subject to the approval of the CPUC, consider incorporating additional measures into the landscaping and site design for project facilities. These measures include reducing the profile of the compressor facility by undergrounding a portion of the facility and using excavated material to create a berm around the facility to further reduce the visibility of the compressor. This berm would also serve as a base for planting the landscape buffer, which would initially increase the effectiveness of the buffer in screening views of the compressor from adjacent vantage points. The use of fast-growing evergreens and the planting of the landscape buffer prior to the construction of project facilities will also enhance the effectiveness of the landscaping in screening views of the structures. Additionally, the establishment of performance criteria and a long-term maintenance program is also described under this measure to ensure the long-term effectiveness of the landscape buffer. The measures incorporated into the project design by the Applicant and the measures outlined in Mitigation Measure 3.12-1 taken together will effectively reduce the visibility of the project facilities, minimizing the ability of these facilities to degrade the visual character or quality of the site.

## Letter O5

LODI NATURAL GAS STORAGE PROJECT, (LLC).

Phone No. 209-368-9277

ATTN: Mr. Scott Wilson

SUBJECT: Lodi Agricultural Concerns about Injecting Natural Gas at a depth of 2,000 feet below Ground Surface.

BY: James B. Moore Jr. of JBM CONSULTANTS.

166 W. E St. Galt, Ca. 95632

Phone No. 209-745-5611

After 40 years of Work in the field of Agricultural Irrigation, Pumps, & Wells I feel compelled to ask the following questions:

- 1) Your (LLC) News Articles state that you will Inject Natural Gas at a depth of 2,000 feet below Ground Surface. Isn't this a thin margin of Safety between The Underground Water Aquifer & the Gas Storage Pocket?  
( Local well Drillers have been drilling Wells from 700 ft. to 1100 ft. for the past 30 years). | O5-1
- 2) Have you investigated the problems that have occurred with local Growers and who have experienced Natural Gas chimneys that have leaked Natural Gas into Deep wells? Some in Wells of 700 ft. depth?  
The Natural Gas causes Cavitation in the Bowls & On the Impellers-shortening the life of the Turbine, much like the damage Air does when a Pump breaks suction. | O5-2
- 3) One Well driller in Linden has drilled a Well to a depth of 1200 ft. He states that there is a totally different Underground Acquifer below 1200 feet & that the depth is unknown. | O5-3
- 4) Can you explain in detail, how comprehensive your Groundwater Monitoring & Testing system will be? | O5-4

## **Responses to Comments from JBM Consultants—James B. Moore**

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- O5-1. Because the Lodi natural gas field still retains some gas and recently contained substantially more gas than it currently contains, it is believed that the field can be safely used for storage. In addition, because the distance between the top of the storage reservoir and the bottom of the potable water (approximately 500 feet below ground surface [page 3.4-6 of the draft EIR]) is almost 1,500 feet, it is highly improbable that a well driller would inadvertently drill into the storage reservoir.
- O5-2. Natural gas chimneys were not investigated as part of the draft EIR analysis. It is possible for wells to penetrate shallow deposits of natural gas. It is common for natural gas to move through fractures in bedrock; however, there is no evidence that the formation proposed for storage is fractured and leaking. The Division of Oil, Gas, and Geothermal Resources regulates well construction and abandonment. That agency is responsible for ensuring the safety of well design and construction for the project.
- O5-3. Wells drilled in Linden encounter different geological conditions than those in the project area. Linden is approximately 15 miles southeast of the Lodi gas field. Because it is closer to the foothills, it is likely that the area's valley fill deposits are much shallower and the well driller encountered the basement bedrock formation.
- O5-4. The groundwater monitoring program is described on page 2-45 of the draft EIR.