DRAFT

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Re: Comments on Reopening of Major Facility Review Permit,
Valero Refining Company, California (Facility No. B2626)

Dear Ms. Cohen:

Thank you for your letter of September 22, 2005, providing comments on behalf of Our Children's Earth Foundation on the public draft for the proposed reopening of the Major Facility Review Permit for the Valero Refining Company, California. The District is now issuing the final permit for this reopening. The District has considered your comments in preparing the final permit, and has the following responses. (Please note that the numbering of the headings does not track the headings in your comment letter, as some headings addressed general, background issues and did not provide specific comments on the proposed reopening.)

I. Comments Regarding Adequacy of Monitoring, Recordkeeping & Reporting:

Three comments were raised regarding the adequacy of the monitoring, recordkeeping and reporting requirements in the Permit. They are addressed in turn below.

A. North Flare—Monitoring for NSPS Subpart J

Comment 1: "[40 C.F.R. Section] 60.104(a)(1) imposes a hydrogen sulfide ("H2S") emission standard, and contains an exemption for the "combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions." Therefore, in order to qualify for the exemption, a flaring event must satisfy the conditions necessary for the exemption – *i.e.*, "relief valve leakage" or some other "emergency malfunction." The only way to verify whether an exemption is properly claimed is to require federally enforceable monitoring and reporting of flaring events to the District.

* * *

"Monitoring is required to determine whether in fact there was an emergency "malfunction," as defined under 40 CFR § 60.2, NSPS Subpart A, as opposed to other types of flaring events that might not qualify for the exemption. Pursuant

to NSPS Subpart A, the definition of "malfunction" means a "sudden, infrequent, and not reasonably preventable" equipment or process failure, and excludes failures caused by "poor maintenance or careless operation." 40 C.F.R. § 60.2 Without monitoring and reporting of flaring events to the District, no information exists to determine whether a claimed "emergency malfunction" is actually a routine event or due to poor maintenance or careless operation, and therefore does not qualify for the exemption.

* * *

"In addition to monitoring, the Permit must include appropriate reporting to the District to ensure compliance with NSPS Subpart J." . . . An exemption under NSPS Subpart J may be attributable to upset conditions and therefore require prompt reporting of such conditions to the District.

"Indeed, the District elsewhere acknowledges that monitoring and recordkeeping are required to verify that a source qualifies for an exemption from an applicable requirement. As documented in the previous reopening of the Valero Permit, notice of which was issued on April 15, 2005, the District requires Valero to monitor and keep records necessary to demonstrate that its cooling towers qualify for exemption under Regulation 8-2. See SB (April 15, 2005) at 19. According to the District, "the facility has the burden of keeping records necessary to demonstrate that it qualifies for the exemption." SB (April 15, 2005) at 19. Accordingly, Valero has the burden of monitoring, recordkeeping, and reporting necessary to demonstrate that each flaring event qualifies for the exemption from the H2S standard in NSPS Subpart J.

"Rather than adding the required monitoring in this reopening, the District decided to "defer its response" until EPA issues new guidance on this issue. SB at 11. The District points to EPA's withdrawal of past guidance addressing the issue, interpreting this to mean that EPA has somehow reconsidered or failed to clarify its position, SB at 11, even though EPA did not explicitly rely on the guidance in its Order. See EPA Order at 29-30. This deferral is improper. First and foremost, the EPA Order is in full force and effect and has not been stayed, modified, or withdrawn. OCE notes the Valero Refinery requested but was not granted a stay of the EPA Order. Secondly, in its recent comment letter to the District regarding the Valero Permit, EPA explicitly stated that withdrawal of the guidance "does not represent a change in EPA's position regarding monitoring required for affected flares."

Response: As the District has explained in correspondence with EPA on this issue, Title V does not provide authority to impose monitoring for purposes of determining whether a requirement is applicable. Authority to impose new monitoring relates only to "applicable" requirements. As the District has also stated, it is important to address whether Subpart J is in fact applicable. However, the question of whether Title V monitoring is appropriate does not arise unless and until the standard is determined to apply.

Title V reporting requirements apply to all standards that are incorporated into the permit as "applicable." As discussed above, the first question to address is whether the standard is "applicable."

The correspondence between BAAQMD and EPA reflects a difference of opinion regarding whether Title V monitoring is required for the H2S standard Subpart J as well as the conditions under which that standard applies. That EPA issued and then withdrew guidance is, in the District's view, noteworthy, but in no way determinative of the issue. Whether Title V monitoring is required for a requirement that has not been determined to be applicable is primarily a legal issue, and the District has explained its reasoning on this topic. Whether Subpart J applies at flares that have heretofore been considered exempt is a mixed question of law and fact, and the District has explained its position on this topic as well. The District's statement to the effect that it would defer a response until new guidance is issued was, in part, a reaction to EPA's statement, in withdrawing the guidance, that new guidance was forthcoming. The District remains receptive to consideration of further rationale, whether offered in guidance or some other form.

B. Cooling Towers—Monitoring for BAAQMD Reg. 8-2

Comment 2: "EPA objected to the Valero Refinery Permit due to its lack of monitoring to assure compliance with the emission limit of BAAQMD Regulation 8-2-301. EPA therefore directed the District to add periodic monitoring to assure compliance with Regulation 8-2-301. See EPA Order at 34. As an alternative, EPA said the District may make a determination that an exemption under Regulation 8-2-114 applies, based on the facility's use of "best modern practices" for the source, and revise the Permit to require the use of best modern practices. See EPA Order at 34.

* * *

"According to the District, the Refinery employs "best modern practices" for monitoring cooling tower water for indications of heat exchanger leaks. SB (April 2005) at 19. Such practices are: visual inspection for leaks, a conductivity test of the cooling water, free chlorine testing, and Total Organic Content testing, each of which is conducted at a specified frequency. See SB (April 2005) at 19. This determination is erroneous, however, as it excludes a requirement to repair any cooling tower leaks within a maximum limited time period. Clearly, best modern practices should not include delay of cooling tower repairs beyond a reasonable time, which may include immediate repairs.

"Furthermore, the Permit has not been revised to require the use of "best modern practices" consistent with the EPA Order. See EPA Order at 34. The District has merely made a determination that the Refinery qualifies for the exemption because it uses what the District now believes to be "best modern practices." The District has not required the use of such practices to ensure the facility's continued compliance, however. Currently there are no federally

enforceable means to determine whether the cooling tower actually qualifies for the exemption on an ongoing basis. In fact, the Permit lacks any specific requirement for use of these particular monitoring and testing methods. Accordingly, the monitoring methods described on page 19 of the April SB should be included as a federally enforceable Permit condition, with a requirement to repair all detected leaks within a specified limited time period.

"Finally, the District must also require appropriate record-keeping and reporting in the Permit in order to demonstrate that the cooling tower qualifies for the exemption under Regulation 8-2-114, which is a federally enforceable rule. According to the District, "[t]he facility has the burden of keeping records necessary to demonstrate that it qualifies for the exemption." SB (April 2005) at 19. Since maintaining "best modern practices" is a federal requirement, federally enforceable monitoring, record-keeping and reporting requirements should be included in the Permit. In addition, to qualify for the exemption, Valero should also be required to record and report all detected leaks at the cooling tower and the date any such leaks were corrected, and federally enforceable monitoring is required to ensure that the cooling tower complies with the emission limit of Regulation 8-2-301 in the event that it does not qualify for the exemption."

Response: The exemption for facilities using best modern practices is a criterion of applicability. For facilities that are found to be using such practices, 8-2 does not apply. The comment is premised on the argument that every criterion for applicability is a "requirement" for which Title V monitoring is required. This argument is contrary to the plain language of Title V and Part 70, which imposes monitoring only for "applicable" requirements. Moreover, the logic of the argument dictates an implausible and impractical consequence, namely, that a Title V permit must impose monitoring for the entire universe of activities that conceivably might in the future meet applicable criteria for any federally enforceable standard. If a facility now using best modern practices ceases to do so, regulation 8-2 will become applicable immediately, at which point the question of whether Title V monitoring is appropriate would become relevant.

The determination of "best modern practices" is based on best practices currently in place within the industry. The District has determined that Valero is currently implementing best modern practices. This is an engineering determination by the District based on the specific equipment in question. Three times a day, Valero performs a visual inspection for leaks, a conductivity test of cooling water, and a free chlorine test of cooling water. In addition, it performs a total organic content test twice per week. The comment suggests that "best modern practices" must include a requirement for repairs to be made within a specified time period. The District does not interpret best modern practices to include such a requirement, which would be difficult to formulate given the wide range of circumstances that might give rise to a need for repairs and the limited experience with repairs to this specific equipment.

C. Cooling Towers—Monitoring for BAAQMD Reg. 6-311

Comment 3: "BAAQMD Regulation 6-311 calculates the allowable emission limits for the discharge of particulate matter from cooling towers. The emission limits are determined by applying the process weight rate of the cooling tower to emission rates found in Table 1 of the Regulation.

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"The process material used to determine the process weight, and therefore the process weight rate, must be identified to ensure that it only includes "material introduced into the operation" under Regulation 6-203, and not other substances. If the process material does not meet the requirements of Regulation 6-203, then the emission limits applied to the cooling towers will be incorrect and the District's justification for not imposing periodic monitoring is flawed. The SB does not identify the material used to determine the process weight rate. There is no way to determine the applicable emission limits without identification of that material."

Response: For cooling towers, the "process material" for purposes of the Regulation 6-203 definition is the water that flows through the cooling tower. The process weight rate used to determine the applicable Regulation 6-311 limit for cooling towers is calculated by multiplying the cooling tower water flow rate by the weight of the water. In all cases, the process weight rate for the cooling towers is well over the highest Regulation 6-311 threshold, making the cooling towers subject to the 40 lb./hr. limit. The District has revised the Statement of Basis to clarify that water flow rate is the process weight basis for determining allowable emissions for a cooling tower subject to Regulation 6-311.

II. Comments Regarding The Need For A Compliance Schedule

A number of comments were raised regarding the Compliance Review that the District conducted in response to EPA's determination in its 3/15/05 Order that the District had not adequately supported its determination that no schedule of compliance was necessary to address on-going non-compliance at the facility. Each comment is addressed below.

A. Extent of Documentation of Causes of Past Violations

Comment 4: "For the public to effectively evaluate the Refinery's compliance record and comment on the necessity of a compliance schedule for any of its listed sources, it is necessary to include information about the causes of the violations, as well as whether and how those causes have been corrected.

* * *

"The SB should be revised to include a root cause analysis and list of corrective actions for each violation. The origin of and solution to each violation should

be fully explained. For example, under the Industrial Safety Ordinance for Contra Costa County, each refinery in its jurisdiction must submit to the County an Annual Performance Review and Evaluation, including "root cause" analyses and "corrective actions" for incidents at each facility. Our review of these reports for the Tesoro Refining and Marketing Company indicated that the District's "Compliance Review" in the SB was incomplete and in some cases inaccurate or misleading. While we were unable to review any such reports for the Valero Refinery since Solano County has no requirements similar to those of Contra Costa County, we are concerned the District's "Compliance Review" in the SB for Valero is flawed for the same reasons we identified in our comments on the Tesoro permit reopening."

Response: As EPA made clear in its March 15, 2005 Order, the District was required to "make a reasonable determination that no compliance schedule is necessary because (i) the facility has returned to compliance; (ii) the violations were intermittent, did not evidence on-going non-compliance, and the source was in compliance at the time of permit issuance; or (iii) the District has opted to pursue the matter through an enforcement mechanism and will reopen the permit upon a consent agreement or court adjudication of the noncompliance issues." Order at 16. The District's Compliance Review was more than adequate to satisfy these requirements. For each violation, the District documented when and how the violation was stopped and the facility returned to compliance. It also documented why the violations were isolated or intermittent and did not evidence ongoing non-compliance, for example by explaining that multiple violations at a particular process unit were caused by unrelated problems. The District therefore disagrees that additional detail needs to be provided in the Compliance Review to support the District's determination that no compliance schedule is necessary.

The comment states that the District's Compliance Review is inadequate because it lacks the level of detail provided in Tesoro's June 30, 2004, Annual Performance Review and Evaluation Submittal, submitted pursuant to the Contra Costa County Industrial Safety Ordinance. However, the District's Compliance Review does not need to include the highly detailed information provided in submissions under the Industrial Safety Ordinance in order to adequately explain and support the District's determination not to require a schedule of compliance. The District does investigate violations at the refinery to this level of detail, and it documents those investigations in its files, which are open for public inspection once a violation is settled. But for a number of reasons, the District does not believe that it would be appropriate to include that level of detail in the Compliance Review. For one, it would make the Compliance Review, and hence the Statement of Basis, a huge and unwieldy document if such detailed information were to be included for every violation, which would run counter to Title V's goal of providing information to the public in an easily accessible format. For another, it simply is not necessary to

do so in order to undertake a meaningful assessment of whether a compliance schedule is necessary, as explained above.

B. Multiple and Repeat Violations

Comment 5: "[T]he District has not adequately evaluated the origins of the high number of violations at the Refinery such that it can be determined that these problems are sufficiently resolved."

* * *

"Even where violations may be due to different causes, the high number of overall violations of a certain type, or at a specific source, indicate that the Refinery has been unwilling or unable to maintain the facility at a level necessary to maintain ongoing compliance, promptly detect violations, and prevent avoidable problems. This high number of violations may be indicative of systemic problems, such as lack of protocols and training, which require evaluation and correction. Accordingly, to explain and address the causes of these problems, the District should add a compliance schedule to require the Refinery to conduct an audit to evaluate its operations and practices, identify and analyze the reasons for the violations, and develop improved protocols for inspection, maintenance and appropriate employee training. This should include "root cause" analyses for episodes and violations. Finally, where specific problems are identified, the District should require a compliance schedule to assure the facility's continued compliance with all applicable requirements."

* * *

"The Valero Refinery has been issued numerous violations of the same or similar type between 1/1/01 and 12/31/04."

Organic Liquid Storage Requirements
"The Refinery was issued 30 NOVs for violations of organic liquid storage requirements (BAAQMD Reg. 8-5) during the time period covered by the SB."

* * *

Equipment Leaks
"The Refinery was issued 12 NOVs for equipment leak violations (BAAQMD Reg. 8-18), during the time period covered by the SB."

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Opacity Emissions Violations
"The Refinery was issued 13 violations for excess opacity emissions."

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Administrative Violations
"The Valero Refinery was issued 16 NOVs for numerous 'administrative violations' between 1/1/01 and 12/31/04."

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Specific Sources

> "Source #5—FCCU Catalyst Regenerator. This source was the subject of 10 NOVs during the four-year period the SB addresses . . . ."
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> * * *
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> "Source #45—Process Gas Turbine. This source was the subject of 6 NOVs between 1/1/01 and 12/31/04, all for excess NOx emissions . . . ."
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> * * *
>
> Source #220—Hot Oil Furnace. This source was the subject of 4 NOVs between 1/1/01 and 12/31/04 . . . ."
>
> * * *
>
> Source #237—Boiler/Steam Generator. This source was the subject of 4 NOVs between 1/1/01 and 12/31/04 . . . ."
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> * * *

Electrical Power Problems and Equipment Failures

"The Refinery appears to have some electrical power problem that has been responsible for numerous violations and episodes. "

Response: The District has adequately investigated and addressed situations where particular sources or source categories have experienced multiple or repeat violations, as EPA determined in its March 15, 2005, Order. As EPA explained in the Order,

> "When determining whether a compliance schedule is necessary for ongoing violations at a particular emission unit based on multiple NOVs issued for that unit, it would be reasonable for a permitting authority to consider whether the violations pertain to the same component of the emission unit, the cause of the violations is the same, and the cause has not been remedied through the District's enforcement actions. Again, Petitioner has failed to demonstrate that the District's consideration of the various repeat episodes and alleged violations may have resulted in a deficiency in the Permit."

Order at p. 17. The comment has not provided any reason to question EPA's determination on this issue.

In addition, EPA also endorsed the District's view that

> "at a refinery, at least occasional events of non-compliance can be predicted with a high degree of certainty. . . . Compliance by the refineries with all District and federal air regulations will not be continuous. However, the District believes the compliance

> record at [Bay Area] refineries is well within a range to predict reasonable intermittent compliance."

Order at 21, quoting the District's December 1, 2003, CRTC at 15. EPA further explained the

> "practical reality that complex sources with thousands of emissions points which are subject to hundreds of local and federal requirements will find themselves out of compliance, not necessarily because their permits are inadequate but because of the limits of technology and other factors. Even a source with a perfectly-drafted permit—one that requires state of the art monitoring, scrupulous recordkeeping, and regular reporting to regulatory agencies—may find itself out of compliance, not because the permit is deficient, but because of the limitations of technology and other factors."

Order at 21. The District agrees with these statements, and does not find any reason to require a compliance schedule based simply on the "overall number of violations" that this facility has experienced.

In summary, the District disagrees that it has not adequately explained why it has not imposed a schedule of compliance as a result of what OCE contends are "repeat and multiple violations" and "the very high overall number of violations" at this facility.

C. NSPS Subpart J/Consent Decree Requirements

Comment 6: "Evidently, there are at least thirteen sources at the Valero Refinery that require a "compliance schedule" for compliance with 40 C.F.R. § 60.104 ("Standards for sulfur oxides"), NSPS Subpart J. According to the Permit, the 13 sources listed below are subject to NSPS Subpart J. The Permit indicates that a "compliance schedule" applies to each of these sources for compliance with 40 C.F.R. § 60.104. However, no such compliance schedules are included in the Permit. See Permit at 476 (Sec. V, "Schedule of Compliance"). Moreover, the SB provides no information regarding the compliance status of these 13 sources, and fails to provide any factual or legal basis explaining the need for compliance schedules. See SB at 20 ("Schedule of Compliance"), 24 ("Compliance Status").

"The Valero Refinery is covered by a judicial consent decree with EPA setting forth specific obligations for the facility's compliance with NSPS Subpart J. 70 Fed. Reg. 36,410 (June 23, 2005) (notice of the proposed decree) ("CD"). Compliance obligations arising from this decree must be contained in the terms and conditions of the Permit and discussed in the SB.

"Title V unambiguously requires that each permit "include … a schedule of compliance … and other such conditions as are necessary to assure compliance

with applicable requirements." 42 U.S.C. §7661c(a). Thus, the permit *itself* must include a schedule of compliance where a source is not in compliance at the time of permit issuance. 40 C.F.R. § 70.6(c)(3) ("All Part 70 permits shall contain the following elements with respect to compliance: … a schedule of compliance consistent with § 70.5(c)(8)(iii) of this part."). "If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan." BAAQMD Reg. 2-6-409.10.3. The compliance schedule "shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject." 40 C.F.R. § 70.5(c)(8)(iii)(C). It "shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based." *Id.* Finally, the schedule of compliance must provide for submission of certified progress reports containing specific information at least every six months. *See* 40 C.F.R. §§ 70.5(c)(8)(iv); 70.6 (c)(4); BAAQMD Reg. 2-6-409.10.3.

"To ensure that a Title V permit satisfies these compliance plan requirements where, as here, the facility is subject to administrative order or CD, the permit itself must contain the specific obligations arising from the order or CD. EPA has determined that, where a CD addresses how a facility will meet and ensure continuing compliance with applicable requirements, the permit must specifically incorporate these provisions by including: "1) a copy of the signed CD for attachment to the permit, 2) a cross reference to the signed CD (including caption, date signed and/or entered and court), and 3) a statement that the CD will be complied with, including submission of semiannual progress reports, as provided for in the CD." See letter to Tom Bachman, Div. of Air Quality, North Dakota Health Dep't, from Richard R. Long, Director, Air and Radiation Program, EPA Region 8, Ref. 8P-AR, Re: Tesoro (BP Amoco) Consent Decree, dated April 12, 2002."

Response: [Reponse to be provided when permit finalized.]

D. Alleged Errors in Information Presented

Comment 7: "The District classifies multiple/repeat violations with "different causes" as either "B" or "D" (thus not requiring a compliance schedule). Without information about the underlying causes, we are unable to determine whether these classifications are appropriate. In addition, for 5 sources (S-5, S-18, S-45, S-207, S-237), only 1 NOV is classified as "D," even though there appear to be "multiple/repeat" violations warranting a "D" classification according to the District's coding system. The codes therefore appear to be either unreliable or misleading."

Response: As previously noted in the District's response to comment 4, the level of detail necessary to determine whether violations occurring at the same

source had different causes is found in District files documenting the investigations of those violations. These files are open for public inspection once a violation is settled. This level of information is not appropriate for inclusion in the Compliance Review. For one, it would make the Compliance Review, and hence the Statement of Basis, a huge and unwieldy document if such detailed information were to be included for every violation, which would run counter to Title V's goal of providing information to the public in an easily accessible format. For another, it simply is not necessary to do so in order to undertake a meaningful assessment of whether a compliance schedule is necessary, as further explained in the response to comment 4. In many cases, however, the cause of the violation can be determined from the information included in the Compliance Review.

In commenting that only one NOV is classified as "D" for multiple violations occurring at the specified sources, the commenter appears to have misunderstood the codes. Both "B" and "D" are used to denote violations at sources at which more than one violation occurred during the 4-year period covered by the analysis. The distinction between the two codes is that "B" is used when the source came back into compliance on the same day on which the violation occurred and "D" is used when the source came back into compliance sometime after the day on which the violation occurred. For the five sources noted in the comment, the information in the table is correct: for most of the violations, the source came back into compliance on the day on which the violation occurred.

Comment 8: "Seven NOVs fail to include source numbers. While some "administrative violations" may not stem from a listed source, other NOVs specifically omit the source number, making it impossible to tell whether these NOVs are related to any other violation."

Response: The table correctly includes no source number for each of these NOVs. Not all equipment at a refinery has a source number. Three NOVs resulted from an administrative violation that involved reporting on multiple sources but did not involve any physical problem at any of the sources. An explanation for each NOV is provided below. None of these NOVs is "related to any other violation."

V#	Explanation
A10628A	GLM excess attributed to overflow of a water tank T-401 that does not have a source # but serves s#1003, the hydrocracker unit.
A13186A	Visible emissions NOV issued for fire at circulation pump that is not a direct source of air pollution and has no source number.
A46264A	Administrative violation for 38 tanks in 2003 and 19 tanks in 2004.
A46265A A46265B	Administrative violation for 10 tanks.
A46268B	Violations occurred at old LPG loading rack that is exempt from permits

	(grandfathered) and does not have a source #.
A46827A	NOV was for failure to properly maintain a GLM; a GLM is not a source and has no source #.

E. Format of Table

Comment 9: "Appendix C of the SB is sorted chronologically according to the date an individual NOV was issued, regardless of which source the NOV relates to. This structure makes it extremely difficult for the public to determine whether a particular source has a pattern of noncompliance because the violations are not sorted by source in the table. Instead, the Appendix should be organized by source number, which would allow the public to more easily evaluate whether a source has a pattern of noncompliance."

Response: The table can be sorted in a number of different ways, each of which carries certain benefits as well as certain drawbacks. The District disagrees that sorting the table by date rather than source number makes it unduly difficult to evaluate the information presented in the table. The District notes that the commenter was in fact able to undertake a detailed review and analysis of the compliance evaluation summarized in the table, regardless of how it was sorted. The District also notes that neither 40 C.F.R. Part 70 nor the Administrator's March 15, 2005, Order require this type of information to be presented in any particular format.

Again, thank you for your comments. If you have any questions about this action, please call me at (415) 749-4653.

Sincerely,

DRAFT

Brian Bateman
Director of Engineering

Enclosures
BFB:myl

cc: Ms. Christa Salo, Golden Gate University School of Law