Summary Minutes of the STATE ENVIRONMENTAL COMMISSION (SEC)

Meeting of June 17, 2010, 10:00 AM

Nevada Department of Wildlife 1100 Valley Road Reno NV

Members Present:

Lewis Dodgion, Chairman Alan Coyner, Vice Chairman Jason King (Eugene) Jim Gans Kathryn Landreth Harry Shull Members Absent: Pete Anderson

Kenneth Mayer Frances Barron

Tony Lesperance Stephanne Zimmerman **SEC Staff Present:**

Rose Marie Reynolds, SEC/DAG John Walker, Executive Secretary Kathy Rebert, Recording Secretary

BEGIN SUMMARY MINUTES

The meeting was called to order at 10:00 am by Chairman Dodgion who declared there was a quorum.

Mr. Leo Drozdoff, recently appointed DCNR Acting Director, addressed the Commission and announced he has named Dr. Colleen Cripps as Acting Administrator of the NDEP.

Mr. Drozdoff also presented A Proclamation by the Governor in recognition of Chairman Lew Dodgion who is retiring from the Commission. Recognizing the "profound contribution that Mr. Dodgion has made to all citizens of Nevada through his long, distinguished service with both the Division of Environmental Protection and the State Environmental Commission" Governor Gibbons proclaimed June 17, 2010 as a day in honor of Lew Dodgion. The Governor's proclamation and Mr. Drozdoff's verbatim remarks (audio file) are posted on the SEC website at: http://www.sec.nv.gov/main/lew06172010.htm

Moving on to the agenda, the Chairman announced one settlement agreement (Lake Tahoe Horizon Casino Resort) was withdrawn (prior to the final agenda being posted). There were no other changes to the agenda.

1) Approval of minutes from the October 6, 2009 and December 9, 2009 SEC hearings - Action Items

Mr. Gans moved to approve the minutes of the October 6, 2009 hearing as written. Ms. Landreth seconded and the motion passed.

Mr. Gans moved to approve the minutes of the December 9, 2009 hearing as written. Ms. Landreth seconded and the motion passed.

2) Settlement Agreements, Air Quality Violations - Action Item

The Settlement Agreements table is shown in ATTACHMENT 1. Penalties are based on the Administrative Penalty Table and Penalty Matrix adopted by the Commission.

Mr. Mike Elges, Chief, Bureau of Air Pollution Control, announced to the Commission changes made in his bureau and introduced the two staff members providing details on the agreements. Mr. Larry Kennedy has taken a position heading up the Title V permit program and Mr. Francisco Vega has taken over the compliance officer position.

First, Mr. Francisco Vega, Supervisor of the Compliance and Enforcement branch in the NDEP's BAPC, discussed and presented the settlements for the first three companies on the settlement table. For Mr. Vega's complete remarks, see ATTACHMENT 2.

- Advanced Refining Concepts is proposing to operate a clear refining fuel processing
 facility in the Reno-Tahoe Industrial Center in Storey County. NDEP staff discovered
 Advanced Refining had begun construction in January 2010 on four large fuel tanks and had
 not applied for the required air quality operating permit, as described in NOAV 2245.
 Recommended penalty is \$1,000 for each month without the permit for a total of \$3,000.
- WorldColor operates a rotogravure printing press facility near Fernley in Lyon County. In April 2009 WorldColor conducted annual compliance testing of the Cylinder Plating Tanks and in June 2009 learned the permitted limit for total chromium had been exceeded. In addition, WorldColor failed to submit the source test report within 60 days of test completion. The test was not submitted until January 2010. These violations resulted in NOAV 2235 & 2236. Because chromium is a hazardous air pollutant, the penalty matrix establishes the base penalty to be multiplied by a factor of 2. The combined recommended penalties total \$12,000.
- 21st Century Environmental of Nevada operates a commercial hazardous waste treatment, storage, and recycling facility in Lyon County and processes hazardous waste, such as cyanide, associated with plating operations. The air quality operating permit issued to 21st Century requires a device to monitor and record the volumetric flow rate of the main scrubber on a daily basis. During a January 2010 on-site inspection, NDEP staff discovered 21st Century had failed to install the required device and had operated without the device since February 2007. BAPC issued NOAV 2233 and is now recommending, based on the Penalty Table, a penalty be assessed of \$10,000 for each year monitoring was not conducted, for a total of \$30,000.

Chairman Dodgion asked each of the company representatives present at the meeting if they agreed to the Settlements: Mr. Rudolph Gunnerman, Advanced Refining Concepts, Mr. Michael Pender, World Color Fernley, and Ms. Marie Weinheimer, 21st Century each replied yes in agreement.

Commissioners discussed with Mr. Vega some issues and questions regarding the violations and penalty proposals.

One major issue was expressed by Mr. Coyner relating to the 21st Century facility, which involves cyanide, operating for 3 years without a monitoring device, especially in close proximity to people. There was considerable discussion regarding the length of time the facility operated without a monitoring device, if there was air direction monitoring, and proximity to public. Mr. Coyner also asked if the facility characterizes every shipment of hazardous waste it receives.

Mr. Vega said a condition of the air permit is that the facility may not process hazardous waste prohibited by their RCRA permit. Mr. Elges provided more information about the dominate hazardous waste processed at the facility. He also said all air permits require boundaries on the types of materials or processes being authorized or approved.

Motion: Ms. Zimmerman moved to approve the 3 proposed settlements for NOAVs 2245, 2235, 2236, and 2233. Mr. Lesperance seconded. Motion passed unanimously.

At this point, the Chairman moved to the **Bango Oil settlement** which Mr. Larry Kennedy, Supervisor of a Permitting Branch in NDEP's BAPC, presented. A copy of Mr. Kennedy's detailed statement may be found on **ATTACHMENT 3**.

Mr. Kennedy explained that the presentation of the Bango Oil Settlement Agreement was delayed for a year due to a pending appeal (subsequently denied) of the modified air quality permit as well as action required by the Bureau of Water Pollution Control regarding the water treatment system portion of the Settlement. Information about the appeal is available on the SEC website at: http://sec.nv.gov/main/bango09_appeal.htm; information about NDEP's water pollution control discharge permit is posted at: http://ndep.nv.gov/bwpc/bango.htm.

Summary Remarks by Mr. Kennedy: Bango Oil operates a used oil re-refining plant in western Churchill County. In July 2008, Bango Oil submitted an application to revise its air quality permit which included addition of new equipment. In October 2008, NDEP discovered the hydrotreater and a cooling tower had already been constructed. Commencing construction or modification of a stationary source without first applying for and receiving a modification of an operating permit represents a major air quality violation. Based on the presence of two unpermitted systems and duration of at least 18 weeks, the prescribed penalty called for was \$108,000.

Based on the large penalty amount and in an attempt to address public complaints regarding odor and dust suppression issues relating to Bango, NDEP sought not simply a cash penalty, but also a Supplemental Environmental Project (SEP). Mr. Kennedy explained requirements of such a SEP. He said Bango Oil's SEP proposal involved installing a secondary water treatment system to treat the water generated by the facility's re-refining of waste oil. By producing water that can be used for fire suppression, wet dust suppression and other needs from unusable "waste" water, the Project would benefit air quality and water resources. Therefore the Bango Oil Settlement has two components: a penalty of \$10,000 and a Supplemental Environmental Project requiring the installation and operation of a water treatment system.

Bango satisfied all the Project requirements that would enable operation of the water treatment plant, however, because of an agreement between the company and Churchill County, Bango is not currently operating the plant or providing water for dust suppression.

Chairman Dodgion asked what was holding up approval from Churchill County. Mr. Kennedy speculated it was influenced by the opposition to the plant by residents of the community and specific opposition to applying wastewater for dust suppression on public roads. Mr. Kennedy said the treatment plant had been constructed and could be turned on if amenable to both Bango and Churchill County.

Mr. King asked if Churchill County and Bango Oil cannot come to an agreement, how the SEP would be affected. Mr. Kennedy replied that the terms and obligation of the SEP from a settlement perspective has been met by Bango. Mr. Gans summed up saying the status is in limbo; the Commission could approve the settlement yet the SEP portion may never prove a benefit.

A lengthy discussion followed on this agenda item. During the public comment portion of this agenda item, Mr. Phil Solaro of Bango Oil said they had agreed to the settlement. Mr. Solaro said a special use permit had been received from Churchill County to increase the process capability of the plant. In the permit, one of the requirements is that Bango not discharge any water on county roads or anything for dust control whatsoever. In addition, it was agreed with Churchill County that they (Bango) will double chip-seal Bango Road.

Mr. Gans asked how Bango built without a permit. Mr. Solaro said it was not intentional; some of the equipment was due to come in and Bango asked NDEP if they could set them into place, which NDEP allowed the cooling tower and the boiler. Then when the hydo-treating equipment came in, they only wanted to handle it once with the crane and set it into place so it was connected to where it would work but the water tower and cooling towers were never hooked up to it.

During public comments, Mr. Don Mello spoke as a resident in the Bango area. He spoke about the odor in the vicinity of Bango Oil and said he objects to putting a fine back into the equipment for which you got the fine in the first place. The other issue Mr. Mello said he has is the "dirty water" proposed to be put on the ground. There appears to be a real conflict if NDEP says "you can pour water on the ground" and the County says "no you can't pour water on the ground." He said it seems NDEP, you guys (SEC), and the County should get together to talk about this.

Next, Mr. Rich Wideman, another resident near Bango Oil, spoke. Mr. Wideman said he is angry, disillusioned, and disappointed in the government and NDEP. He expressed that he, his family, and other residents are so affected by the odor from Bango Oil it affects their quality of life. And yet the State, the County and Bango Oil say they don't know where the odor is coming from and that no one knows what emissions are released by Bango.

Mr. Elges acknowledge this is a real passionate issue. Getting back to the chain of events, staff from the program for which he is responsible, determined Bango constructed inappropriately and his staff was tasked with determining what the appropriate corrective actions were and figuring out a path forward from a reasonable penalty perspective. At that point, they tried to address any point in the process that had odors and they are still trying to do this. They recognized a good portion of the processed water that comes out of the refining portion of the facility has the potential to liberate odors. It made sense to improve or mitigate that portion of odor source. NDEP also asked the County if there was any environmental improvement that could be made. A high penalty is warranted for the violations but it is more practical to put that money back into some environmental improvement.

Mr. Coyner said although there are still unresolved questions about the odor, he feels the State went forward in good faith with this settlement agreement, at the time, as a realistic, scientific based solution. And the company fulfilled their end of the bargain; at the time it was a good step forward. The County offset that with a different step at a later date.

Mr. Gans asked when the SEP was considered, why the bureau went to water control instead of some kind of odor treatment. Mr. Elges said they worked on every step in the process and it became apparent maybe they were overlooking an opportunity by strictly looking at the gases side, the emissions side from an air quality perspective. They looked at other things they could do to get at any point in the process that might liberate odors.

Motion: Mr. Gans moved to approve staff recommendation on (NOAV) 2146 with the \$10,000 penalty and the SEP for the water treatment system; seconded by Mr. Shull.

Chairman Dodgion commented that the odor issue is not going to go away and the Commission will more than likely be hearing more about it in the future. He also said that the NDEP staff is going to need to keep a very close watch on the SEP, make sure that the road gets chip-sealed and to keep the Commission advised in the future in case the Commission needs to take stronger actions.

Chairman Dodgion then asked for the vote on the motion: Motion passed unanimously.

3) Air Quality Violation: Zeox Mineral Materials Corporation (Ash Meadows, LLC): Action Item

Mr. Kennedy discussed this violation and settlement proposal with the Commission, noting the settlement had been negotiated with the plant manager for the company, however, the president or responsible official for the company declined to ratify the settlement or stipulate to it. See ATTACHMENT 3 for Mr. Kennedy's detailed statement.

Zeox Corporation operates a mineral processing and bagging plant in Amargosa Valley in Nye County. In mid-November 2009, Zeox conducted "permit renewal" emission source tests on several of its processing systems and notified NDEP in December that preliminary test results indicated that one of the systems had apparently failed its emission test for particulate matter. The exceedances indicated big problems with the emission controls.

In March 2010, NDEP held an enforcement conference with Zeox's plant manager in Las Vegas to discuss the emission exceedances. Mr. Kennedy pointed out the enforcement conference was held in Las Vegas to make it as convenient for the business as possible. Zeox's responsible official declined to attend the conference.

During the conference it was discussed that cracks occurred during regular maintenance three weeks prior to the source test. Filter cartridges were replaced and in March, retesting demonstrated compliance with the emission limits. The potential for a much higher penalty (\$24,000+) existed based on the Penalty Matrix, however, taking into consideration the relatively short duration of the exceedances, the facility's limited production in 2009, and the company's response to the problem, NDEP recommends a penalty of \$8,000 in settlement of NOAV 2225.

The series of events and the penalty process were discussed.

Attorney John Zimmerman spoke to the Commission on behalf of Zeox saying the president of the company intended to be at the hearing but was unable to because of an emergency meeting. Mr. Zimmerman explained that Zeox believes the penalty is excessive and there are a couple of mitigating factors that cut against the size of the penalty. Zeox is a small operation with limited production of 1.7 to 2.2 tons per hour. The independent testing company performed the compliance test at 8 to 9 tons per hour which is much higher than the representative performance of 2.2 tons. At the higher level of testing was when the NDEP and the company noticed the opacity coming from the bag house but because the tests are expensive, the company wanted the test completed. When the test was completed and the machines were put back down to 2.2 tons per hour the facility and the manager did not see any opacity coming from the bag house. The issue of whether this was an air quality violation and how long it continued is unknown because at Zeox's normal, operating capacity no intermittent opacity was seen coming from this bag house.

Mr. Zimmerman pointed out that as soon as the tests results were back Zeox immediately checked the small bag house to determine why it failed. Zeox notified the Division and told them of the problem. After replacing the filter and retesting the system there was no dust coming from the facility. Zeox has no prior violations and has made several improvements to the facility to decrease emissions. Mr. Zimmerman suggested the Commission reduce the penalty.

At this point there was a significant discussion regarding the testing, the testing protocol (or process), permit operating capacity, emission limits, and fairness of the fine.

Mr. Coyner asked what the procedure would be if Zeox doesn't pay the penalty. Ms. Reynolds said a written judgment would be prepared and collection procedures would be instituted.

Mr. Gans quoted a paragraph from Mr. Walker's letter (dated May 12, 2010) to Zeox (see: http://www.sec.nv.gov/appeal_docs/zeox_appeal_denial_letter_final.pdf) which points out that "NDEP acts as the Commission's agent in negotiating penalties, which is accomplished through use of a penalty matrix that was previously approved by the Commission." Mr. Gans expressed his concern in deviating from NDEP's recommendation, saying the Commission should be consistent when assessing penalties.

Motion: Mr. Gans moved the Commission follow staff's recommendation for the \$8,000 penalty to Zeox. Motion was seconded by Mr. King and passed with a vote of 6-2 with Mr. Shull and Mr. Lesperance opposing.

After the vote, Mr. King had to leave the meeting for other business.

Safe Drinking Water

4) Regulation R061-10: Safe Drinking Water Adoption by Federal Reference: Action Item This proposed regulation also includes a two-page "Proposed Minor Amendments".

Ms. Patty Lechler, Supervisor of the Compliance Branch for NDEP Bureau of Safe Drinking Water (BSDW), provided an overview and explanation of the proposed amendments. A full copy of Ms. Lechler's testimony may be found in ATTACHMENT 4.

Summarizing Ms. Lechler's testimony, she said the BSDW is proposing to adopt two new Federal rules in order to maintain Primary Enforcement Responsibility, or Primacy (which she defined). Ms. Lechler discussed the four general purposes of the proposed amendments: 1) to update adoption by reference, 2) to amend certain portions of the existing NACs for public water systems, 3) to amend a section of NAC to meet the needs of the regulated community, and 4) clean-up of language in the NAC. Ms. Lechler also made a detailed report of the changes to the nine sections of the NAC.

Mr. Lesperance asked what was meant by "a small cost" to the public or the business community as referenced on the agenda in the summary of the proposed changes (page 2, paragraph 2). Ms. Lechler replied that in relationship to the Groundwater Rule, the increase sampling runs between \$20 - \$25. Under the current total coliform rule they (water systems) are already required to perform repeat sampling should they have a positive sample. BSDW is looking at protecting public health and for the additional investigative tool obtained from the Groundwater Rule the cost seems nominal.

Chairman Dodgion pointed out the systems are already subject to this because it is a federal requirement.

There was discussion in regard to the public's understanding of the rule and support of the rule. Ms. Lechler said there was a lot of participation at the public workshops and BSDW does a lot of outreach to the community with conferences and other opportunities.

Motion: Mr. Gans proposed adoption of Resolution R061-10 along with the minor amendments. Motion was seconded by Ms. Landreth and passed unanimously.

Air Quality Planning / Air Pollution Control

5) Regulation RO40-10: Repeal of Nevada Clean Air Mercury Rule Program (CAMR): Action Item

This repeal was discussed by Ms. Adele Malone, Supervisor of the Planning and Modeling Branch, NDEP Bureau of Air Quality Planning. Ms. Malone's complete written testimony can be found in ATTACHMENT 5.

Ms. Malone said the CAMR program was adopted by the Commission in September of 2006. It had been developed in response to a federal requirement for states to control mercury emissions from coal-fired electric generating units and power plants. The federal rule was challenged and in February 2008 the US Court of Appeals struck down the Clean Air Mercury Rule. So the federal requirement for the Nevada program no longer exists. The Nevada program adopted a lot of the key points of the federal program so the NDEP program depended on the federal program; when the federal program was vacated, NDEP couldn't implement their program.

So this repeal is basically a clean-up of the NAC. USEPA is currently working on a Federal Utility Boiler MACT rule to address mercury emissions from power plants which they plan to propose by March 2011.

Motion: Mr. Gans moved to approve LCB file number R040-10. Motion was seconded by Mr. Lesperance and passed unanimously.

6) Regulation R022-10: Alternative Fuels in Fleets: Action Item

Mr. Greg Remer, Chief of NDEP Bureau of Air Quality Planning, presented this regulation. Mr. Remer's complete written testimony can be found on ATTACHMENT 6.

Mr. Remer: After changes to Chapter 486A of the statutes made during the 2009 Legislative session, NDEP has been working with affected government fleet operators and other stakeholders to amend the NAC to bring it consistent with the statute. This regulation is the culmination of that effort. Basically the significant changes to the NAC result in new definitions, revised reporting procedures, and clarification of the variance process.

Mr. Remer discussed the changes by section. Section 12 gives the Commission the authority to authorize a variance and provides up to a 3 year variance.

In a public work shop all of the parties agreed that these changes are necessary and provide needed clarification and improvements. There were a couple of issues Mr. Remer shared with the Commission that were raised at the workshop which relate to the provision to allow reformulated gasoline (RFG) as an alternative fuel and the 90% vehicle purchase rate provision. Because the issues were raised at the end of the process, NDEP was not able to completely vet these issues. NDEP has committed to the stakeholders that we will work to address these issues in the near future and return to the Commission with any proposed changes.

In response to a question by Mr. Gans, Mr. Sig Juanarajs, Supervisor of the Program Management branch of NDEP Bureau of Air Quality Planning, explained what SmartWay or SmartWay Elite

vehicles are and gave some examples. They are the cleanest of all gasoline vehicles available with low emissions.

At public comment, Lea Rogers, Regional Transportation Committee, asked if the requirement in the resolution for the fleet operator to submit a statement outlining procedures and internal controls would be part of the regular reporting or a separate report. Mr. Remer replied that it would be in addition to the standardized report if an agency needed to report alternative fuels.

Motion: Ms. Landreth moved to approve the adoption of proposed regulation LCB file number R022-10 and Mr. Shull seconded. The motion passed with Mr. Coyner abstaining because he is going to be asking for a variance for his department.

7) SEC Form 6 - Variance Request Mandating Use of Alternative Fuels: Action Item

Mr. Remer also presented this agenda item. The document proposed is a draft the Division put together for the Commission to consider as its variance request procedure. It was discussed at the workshop with no significant comments. Basically the document steps through the requirements in the regulation for requesting a variance.

Motion: Ms. Landreth moved to adopt the draft as SEC form #6; seconded by Ms. Zimmerman, and passed.

8) Administrator's Briefing to the Commission: Non-Action Item

Dr. Colleen Cripps, recently appointed Acting Administrator for NDEP, gave the briefing to the Commission. Dr. Cripps announced the retirement of Mr. Tom Porta, the Deputy Administrator with whom she worked also as Deputy. Mr. Porta had been with the Division for 30 years and attended Commission hearings for a number of decades. Currently there is no Deputy support in NDEP however it is anticipated the Bureau Chiefs will provide assistance until the elections in November.

Dr. Cripps began her briefing with the budget, saying state revenue forecasts continue to be very bleak. The normal base budgeting process usually used is seen as inadequate to respond to the new reality. Rather than continue to just make cuts across the board to state spending, the Administration is now going to be looking at the elimination of entire service areas. The budget office has devised a system of identifying and prioritizing activities and services provided by state government. In addition to the normal line item budgeting process, agencies are also being asked to prepare an activity budget which will list the various services provided by the agency, the cost of the services, and the source of funding; the services will have to be prioritized and the method of prioritization has been established by Administration. NDEP only has 1% general funds so doesn't expect to see significant impacts to core services. However, there will likely continue to be cuts in the general fund revenue in the Safe Drinking Water and Water Quality Programs. NDEP is working with the Administration and the regulated community to possibly increase fees and there is the possibility of some federal funding sources. Dr. Cripps answered a few questions from the Commissioners.

Dr. Cripps discussed the status of Jungo Landfill and recent events with the waste and air permitting processes. NDEP had deemed Jungo's waste application complete and had been working with Jungo very closely on that permit. In the meantime, there was an air quality permit application which was issued and subsequently appealed. At the same time, there were legal proceedings in Humboldt County involving issuance of the CUP which created some issues for NDEP because without the CUP permit NDEP can't issue the waste permit. There was an emergency stay

involving the CUP so NDEP is moving forward on the waste permit. Recology (parent company of Jungo Land and Investment) is aware that NDEP will be unable to issue the waste permit unless there is a CUP. The air permit appeal was heard last month and the permit was upheld by the Commission (all the details are posted on the SEC website at: http://www.sec.nv.gov/main/jungo_appeal.htm).

In April, Recology submitted a new landfill design incorporating changes requested by NDEP. So the process of the waste permit is continuing however it is not anticipated that the landfill will occur in the near future. NDEP anticipates the technical review will be completed in late 2010 and will go out to public comments in early 2011 (for more information see: http://ndep.nv.gov/jungo/index.htm).

In response to a previous request from the Commission regarding greenhouse gas emissions, Dr. Cripps provided tables and graphs (ATTACHMENT 7) to the Commission and discussed them. While NDEP will continue to use the data reported to them as part of the program, a bill draft request to repeal this program will be brought to the Legislature because EPA adopted mandatory greenhouse gas reporting rule. Rather than duplicating efforts, NDEP thought it would be beneficial to have one reporting program.

At this point, Commissioners made comments on other issues. Mr. Coyner, referring to the report in Agenda Item 2 with reference to cyanide processing (21st Century), said he was upset with it being within a half mile of the suburb. If there becomes a shortage of resources and manpower, Mr. Coyner would rather see hazardous emissions, such as cyanide, addressed rather than dust

vio	lations. A discussion followed with Dr. Cripps saying the EPA standards have to be addressed					
and	d controlled, with or without natural events such as wind contributing. There would be					
ramifications if NDEP did not implement the federal program as they have been delegated to do.						
9)	Public Comment: Non-Action Item					

Meeting was adjourned at 2:46 pm.

No comments.

ATTACHMENTS

ATTACHMENT 1: Settlement Agreements Table - 2 pages

ATTACHMENT 2: Vega Statement on Settlement Agreements - 4 pages

ATTACHMENT 3: Kennedy Statement on Settlement Agreements - 7 pages

ATTACHMENT 4: Lechler Statement on Regulation R061-10 - 12 pages

ATTACHMENT 5: Malone Statement on Regulation R040-10- 2 pages

ATTACHMENT 6: Remer Statement on Regulation R022-10 - 3 pages

ATTACHMENT 7: Greenhouse Gas Emissions Tables/Graphs - 7 pages

ATTACHMENT 1

Settlement Agreements Table - 2 pages

NDEP-BAPC SETTLEMENT AGREEMENTS – June 17, 2010

TAB NO.	COMPANY NAME	VIOLATION	NOAV NUMBER	PROPOSED SETTLEMENT AMOUNT
1	Advanced Refining Concepts, Storey County	NAC445B.275 "Violations: Acts Constituting; notice." For constructing a fuel processing facility without the required air quality operating permit. On November 12, 2009, a Surface Area Disturbance permit was issued for ground preparation work at the site. During inspections in the Tahoe-Reno Industrial Center, on March 22, 2010, an NDEP inspector noticed the construction of the processing tanks had began without the required Air Quality Operating permit. Based on the Penalty Table, constructing without a permit carries a minimum penalty of \$800. The NDEP-BAPC recommended a penalty of \$3,000.	2245	\$3,000
2	WorldColor, Lyon County	NAC445B.275 "Violations: Acts Constituting; notice." For exceeding permitted emission limits and failure to submit the source test report within 60 days. The base penalty for each NOAV is based on the Penalty Table. Failure to submit a report on time carries a minimum penalty of \$600. The NDEP-BAPC recommended a base penalty of \$2,000 for the reporting violation (NOAV 2235). An exceedance of a permitted emission limit carries a minimum penalty of \$4,000. The NDEP-BAPC recommended a base penalty of \$10,000 for the emission exceedance (NOAV 2236).	2235 & 2236	\$12,000
3	21 st Century Environmental Management, Lyon County	NAC445B.275 "Violations: Acts Constituting; notice." For failure to conduct monitoring required by the air quality operating permit. Air quality operating permit AP4953-2235 requires 21 st Century to monitor the volumetric flow rate through the grid scrubber. Based on the Penalty Table, failure to conduct required monitoring carries a minimum penalty of \$600. The NDEP-BAPC recommended a base penalty of \$30,000.	2233	\$30,000
4	Zeox Corporation, Nye County	NAC445B.275 "Violations: Acts Constituting; notice." For exceeding permitted emission limits during a source test. Zeox exceeded permitted emission rates for particulate matter by a factor of 3.3 to 6 times the permitted limits. Investigation by Zeox indicates that the exceedance probably resulted from cracks in the baghouse filter cartridges. Zeox did not concur with (stipulate to) the proposed settlement amount.	2225	\$8,000

NDEP-BAPC SETTLEMENT AGREEMENTS – June 17, 2010 (continued)

TAB NO.	COMPANY NAME	VIOLATION	NOAV NUMBER	PROPOSED SETTLEMENT AMOUNT
5	Bango Oil, LLC Churchill County	NAC445B.275 "Violations: Acts Constituting; notice." For constructing unpermitted processing systems without first applying for and receiving a modification of an air quality operating permit. On July 30, 2008 the company submitted an application to revise its air quality permit. The NDEP subsequently discovered that much of two of the systems being permitted, a filtration system ("hydrotreater") and cooling tower, were already under construction. The revised permit was issued in February 2009. Based on the presence of two unpermitted systems and duration of 18 weeks, the Administrative Penalty Table and Penalty Matrix call for a penalty of \$108,000. The proposed settlement includes payment of a \$10,000 cash penalty and completion of a Supplemental Environmental Project (SEP) requiring installation and operation of a system to treat water generated by the re-refining process. This multiphase, secondary water treatment system must achieve the quality required for reuse of treated waste water in the plant or for surface application, and must cost at least \$122,500 [125% of the remaining \$98,000 penalty]. The SEP would benefit air quality by eliminating a potential source of odors and diminishing pollutant emissions, and benefit water resources by decreasing demands on the local groundwater resource and providing water for plant reuse, dust suppression or other surface applications. On April 1, 2010 the NDEP-Bureau of Water Pollution Control issued a permanent Water Pollution Control Discharge Permit to Bango Oil, under which the facility is permitted to operate the water treatment system. Bango Oil is currently operating only the initial component [dissolved air flotation] of the system; water is being trucked offsite for disposal.	2146	\$10,000 penalty; also involves a SEP (water treatment system)

ATTACHMENT 2

Vega Statement on Settlement Agreements - 4 pages

SEC Meeting - June 17, 2010 Compliance and Enforcement Statement

Mr. Chairman, members of the Commission, good morning. For the record, my name is Francisco Vega, Supervisor of the Compliance & Enforcement Branch in the NDEP's Bureau of Air Pollution Control.

The Commission is authorized under the Nevada Revised Statutes to levy administrative penalties for Major violations of state rules and regulations that protect air quality. Based on a long-standing agreement, the Bureau's Compliance & Enforcement Branch assesses penalties for these violations on behalf of the Commission. The companies listed on today's agenda are aware that the Branch acts as the Commission's agent in negotiating Settlements, and that the Commission may see fit to adjust a penalty that we have assessed.

I will be discussing the first three Settlement agreements involving four Notices of Violation on today's agenda. Each company representing the three Settlement agreements have signed off on the proposed penalty.

Mr. Chairman, what I propose to do is describe the three proposed Settlements before asking if there are any questions. Would that be acceptable?

The first Settlement involves Advanced Refining Company. Advanced Refining is proposing to operate a clear refining fuel processing facility in the Reno-Tahoe Industrial Center in Storey County. In March of 2010, compliance and enforcement staff observed that construction had began on four large fuel tanks on the Advanced Refining site. Further investigation led staff to discover that Advanced Refining had not applied for the required air quality operating permit. In May 2010, an enforcement conference was held to discuss the alleged violation. During the conference it was discovered that construction on the fuel tanks had began in January of 2010.

The Compliance & Enforcement Branch uses the Administrative Penalty Table to assess penalties for non-emission violations. The table calls for a minimum penalty of \$800 for constructing without a permit. The bureau is recommending a penalty of \$1,000 for each month construction occurred on the fuel tanks without the required air quality permit.

The total recommended penalty is \$3,000.	

Settlement No. 2 involves WorldColor Fernley. WorldColor operates a rotogravure printing press facility near Fernley in Lyon County. In April 2009 WorldColor conducted annual compliance testing as required by their air quality operating permit. In June 2009, WorldColor notified the BAPC that the #2 Cylinder Plating tank had exceeded the permitted limit for total chromium during compliance testing. In addition to the emissions exceedance, WorldColor failed to submit the required source test report within 60 days of test completion. WorldColor did not submit the source test report for the April test until January 2010.

The Compliance & Enforcement Branch uses the Penalty Table to help establish base penalties for violations related to source testing. The Penalty Table calls for a base penalty of \$5,000 for the exceedance of a Class 1 permit emission limit. In cases, such as this, involving hazardous pollutants, the BAPC uses the Penalty Matrix to adjust for the level of non-compliance. Given that chromium is a hazardous air pollutant; according to the penalty matrix the base penalty is multiplied by a factor of 2.

Therefore, the recommended penalty for NOAV 2236 totals \$10,000.

As described previously, the Compliance & Enforcement Branch uses the Administrative Penalty Table to assess penalties for non-emission violations. The table calls for a minimum penalty of \$600, per violation, for failure to submit required reporting in a timely manner.

The recommended penalty for NOAV 2235 is \$2,000

The total recommended penalty WorldColor is \$12,000

Settlement No. 3 concerns 21st Century Environmental of Nevada. 21st Century operates a commercial hazardous waste treatment, storage, and recycling facility in Lyon County. 21st Century processes hazardous waste, such as cyanide, associated with plating operations. The air quality operating permit issued to 21st Century requires a device to monitor and record the volumetric flow rate of the main scrubber on a daily basis. Just to give you an idea of the significance of this control, the main scrubber controls approximately 45 liquid treatment process units. In January 2010, the compliance and enforcement staff conducted an on-site inspection of the facility. During the inspection, it was discovered that 21st Century had failed to install the required device needed to monitor and record the volumetric flow rate through the main scrubber.

For a Class II facility the Penalty Table calls for a minimum penalty of \$600 per violation for failing to conduct required monitoring. The BAPC is recommending a penalty of \$10,000 for each year the monitoring was not conducted.

The total recommended penalty is \$30,000.

ATTACHMENT 3

Kennedy Statement on Settlement Agreements - 7 pages

Good morning Mr. Chairman, members of the Commission. For the record, my name is Larry Kennedy. I recently assumed responsibility for supervising one of the Permitting Branches in the Bureau of Air Pollution Control.

Bango Oil: Before I begin, I'd like to explain for the record why presentation of the Bango Oil Settlement Agreement was delayed for a year. Most of you are aware that odor complaints directed at Bango Oil have made permitting and operation of the facility controversial. Shortly before the Commission's June 2009 hearing, a Churchill County resident wrote to the Commission to express concerns regarding the proposed Settlement. At that time, the Commission was actively considering an appeal of the modified air quality permit recently issued to Bango Oil in February of 2009. It would have been difficult last June to discuss the proposed Settlement without getting into issues being discussed as part of the appeal or perhaps compromising it. As you know, a 3-member panel of the Commission subsequently heard – and denied - that appeal.

Another factor is that the water treatment system proposed under the Settlement required a separate action by the Bureau of Water Pollution Control. Following a public hearing and review of comments, in April that Bureau issued the required water pollution control permit. Having resolved these issues, it's now appropriate to describe the violation that occurred and the proposed Settlement.

<u>Bango Oil</u> operates a used oil re-refining plant in western Churchill County. In July 2008, <u>Bango Oil</u> submitted an application to revise its air quality operating permit. The planned revision included the addition of new equipment, including a "hydrotreating filtration system," two cooling towers and a process heater. Just to be clear, the hydrotreating system is an processing system used to make high-quality lubricating oil.

In October 2008, the NDEP discovered that the "hydrotreater" and a cooling tower had already been constructed. Commencing construction or modification of a stationary source without first applying for and receiving a modification of an operating permit represents a major air quality violation. Based on the presence of two unpermitted systems and duration of at least 18 weeks, application of the Administrative Penalty Table and Penalty Matrix call for an <u>administrative penalty</u> of \$108,000 for this non-emission violation.

Rather than seeking a simple cash penalty, the NDEP sought to use the settlement as an opportunity to address environmental issues in Churchill County. Throughout its investigation of and response to odor complaints filed against Bango Oil, the NDEP has sought to address potential sources of odor at the facility, either through the cooperation of Bango Oil or where necessary through enforcement actions. This approach is similar *but more aggressive* than the one we took with regard to odor complaints filed against Nevada Wood Preserving, which I described at the Commission hearing last June.

The NDEP has a policy that environmentally beneficial projects – referred to as <u>Supplemental Environmental Projects</u> – can be undertaken to help settle enforcement actions for violations of

environmental regulations. Based on the large amount of the penalty under consideration, the NDEP determined that such a <u>Project</u> might be an appropriate means addressing outstanding environmental issues while achieving a Settlement.

NDEP policy requires that these Projects must address environmental need but must *not* constitute an action or project that the respondent must otherwise be legally obligated to perform. – In other words, the respondent can't take credit for doing something he would have to do anyway. NDEP policy generally calls for approximately ten percent (10%) of the assessed penalty to be paid in cash, and that the value of a Project must equal at least 125% of the remaining penalty. In this case, an approved Project must total at least 125% of the remaining penalty of \$98,000, or \$122,500. For penalties totaling \$100,000 or more, the NDEP typically requires a minimum penalty of \$10,000.

Fugitive dust and the scarcity of water for use in dust suppression have been issues for some time in western Churchill County. The NDEP consulted Churchill County to determine if the County had any suitable Projects in mind, but it was unable to identify any suitable ones. Following several weeks of negotiations, Bango Oil proposed a Project that involved installing a secondary water treatment system to treat the water generated by the facility's re-refining of waste oil, which contains substantial quantities of water. The system currently in use fails to achieve the water quality required for reuse in the plant or for surface application. Water generated by the re-refining process that cannot be stored on-site must be removed for disposal at another facility or was previously destroyed in the thermal combustor.

Under the proposed <u>Project</u>, all of the water generated by the re-refining process would be treated to achieve the water quality required for surface application or plant reuse. The treated water is <u>not</u> expected to meet drinking water quality standards. Any "surplus" water – i.e., treated process water in excess of that required for fire suppression (stored in tanks onsite) or plant reuse for wash water and cooling tower makeup water - would be used each day for wet dust suppression on dirt roads in the vicinity of the Bango Oil plant, primarily to control fugitive dust on Bango Road. Any excess water from the treatment system would be available for use by other entities for non-potable, surface water applications.

The proposed Project would address a number of environmental issues. By producing water that can be used for fire suppression, wet dust suppression and other needs from unusable "waste" water, the <u>Project</u> would benefit air quality and water resources. With elimination of the thermal combustor or other water treatments that require combustion, the <u>Project</u> would eliminate a potential source of odors, diminish pollutant emissions, and limit destruction of the local water resource. Upon implementation, the Project will offset demands on the local, potable groundwater source by providing up to 6,000 gallons/day of nonpotable water for plant reuse and surface applications. It will help control fugitive dust on Bango Road and other dirt roads in the vicinity of the plant by providing an accessible local source of water.

The Bango Oil Settlement has two components: a penalty of \$10,000 and a Supplemental Environmental Project requiring the installation and operation of a water treatment system to treat the "waste water" generated by the facility's re-refining of waste oil. Before the end of

2009, Bango removed two processing or control systems - the thermal combustor and "Enervac" system – identified by the NDEP has having the potential to generate odors. Bango Oil has satisfied all the Project's requirements that would enable operation of the water treatment plant. We understand, however, that because of an agreement between the company and Churchill County, Bango Oil is not currently operating the water treatment plant or providing water for dust suppression in the County. With that, I'd be pleased to answer any questions you might have.

Zeox: In light of the company's unwillingness to stipulate to the penalty, I'll be providing more details than usual for the record. Zeox Corporation operates a mineral processing and bagging plant in Amargosa Valley in Nye County. In mid-November 2009, Zeox conducted "permit renewal" emission source tests on several of its processing systems. In early December, Zeox notified the NDEP that preliminary test results indicated that one of the systems whose emissions are controlled by a baghouse had apparently failed its emission test for particulate matter. The final test report confirmed that the system had emitted over three times the amount of PM/PM10 allowed by the Air Quality Permit. The report also indicated that the system exceeded the New Source Performance Standard for particulate matter by a factor of six, indicating big problems with the emission controls.

In March, the NDEP held an enforcement conference with Zeox's plant manager in Las Vegas to discuss the emission exceedance. Zeox's responsible official declined to attend the conference. The NDEP noted

that it had pointed out during the tests that the system was showing intermittent opacity, which indicated a potential problem. Zeox said that it upon investigation it had discovered cracks in the baghouse filter cartridges, most of which had been replaced during regular maintenance three weeks prior to the source test. We agreed that these cracks were probably responsible for the failure of the emission controls. Based on the information discussed, the NDEP determined that the apparent violation most likely extended back to the date that the filter cartridges were replaced. Later in March, Zeox retested the system and demonstrated compliance with its PM/PM10 emission limits.

The NDEP and Zeox's plant manager discussed applicable penalties and negotiated a Settlement during the enforcement conference. The Penalty Table includes penalties for violations related to emission exceedances during source tests. For Class 2 facilities - minor sources - the Table calls for a base penalty of \$2,500 for exceeding a permitted pollutant emission limit, and \$4,000 for exceeding emission standards established by the New Source Performance Standards.

In the case of severe emission violations, the NDEP uses the Penalty Matrix to adjust penalties. Applying the Penalty Matrix, exceedance of the permitted PM/PM₁₀ mass emission rate by a factor of $\underline{3}$ results in a penalty of \$7,500; exceedance of the NSPS limit by a factor of six $\underline{6}$ would result in a penalty of \$24,000.

Based on the relatively short duration – prob. six weeks - of the exceedances, the facility's limited production of only 1,503 tons in 2009, and the company's response to the problem, the NDEP recommended a

penalty of \$8,000 in settlement of this NOAV. I'd be happy to answer any questions you might have.

ATTACHMENT 4

Lechler Statement on Regulation R061-10 - 12 pages

Regulatory Petition R061-10/Public Water System Regulations

Good Morning, Mr. Chairman, Members of the Commission.

For the Record, I am Patty Lechler, Supervisor of the NDEP Bureau of Safe Drinking Water Compliance Branch. As we begin this morning, I will be describing some of the overall background on this petition; then, continue with a review of the proposed amendments that include two new Safe Drinking Water regulatory programs. I will conclude the discussion with a description of three additional proposed amendments to Nevada Administrative Code in this petition not related to the adoption of new federal regulations.

To facilitate the discussion, I refer to the *Testimony Outline* that has been provided in your binders; this is a very general outline of the testimony that serves to summarize what is being accomplished in each of the 9 sections of the proposed amendments. Please note that your binders contain "green line" amendments to Sections 4 and 5 of the Legislative Council Bureau language. These minor fixes were prepared with the concurrence of the LCB attorney.

With this petition, the Bureau of Safe Drinking Water is proposing to adopt two new Federal Rules in order to maintain Primary Enforcement Responsibility for the Safe Drinking Water Act and the associated National Primary Drinking Water Regulations. I would like to make a few comments on Primary Enforcement Responsibility, hereafter, referred to as Primacy: The Bureau of Safe Drinking Water regulates public drinking water systems using a combination of State regulations, and Federal regulations adopted by reference. It is important to note that water systems are required to comply with federal regulatory requirements, regardless of whether or not Nevada adopts the federal programs; and the Federal regulations are enforceable by the USEPA. However, since 1978 when Nevada was granted Primacy for the Safe Drinking Water Act, it has been the desire of the State and the regulated community that Nevada be the enforcement authority for federal regulations pertaining to drinking water. In order to maintain Primacy for federal drinking water programs, the NDEP must adopt regulations that are no less stringent than the federal regulations.

To review this petition in a little more detail, the proposed amendments serve four general purposes:

- 1) To update our adoption by reference date to bring in two new federal regulations promulgated between July 1, 2006 and July 1, 2009. The Ground Water Rule is a new program and the Lead and Copper Rule Short-Term Revisions and Clarifications is an amendment to an existing federal program. This update will also include the adoption of 3 other amendments to federal regulations published during this period.
- 2) The second general purpose is to amend certain portions of the existing Nevada Administrative Codes for public water systems that are necessary for overall implementation of the new Ground Water Rule.
- 3) The third general purpose of this petition is to amend a section of Nevada Administrative Code to meet the needs of the regulated community.
- 4) And finally, this petition performs certain miscellaneous language clean-ups to provisions identified by the NDEP as needing amendment.

In order to inform and involve the regulated community of the proposed regulations, numerous outreach opportunities have been utilized since the new federal programs were promulgated. NDEP staff has provided training at several annual Nevada Rural Water Association Conferences and Distance Learning Broadcast trainings through the UNR Extension Service. Staff has published articles in "Waterlines" a publication for public water system owners and operators; provided direct mailing to all public water system owners and operators regarding the requirements of the new Ground Water Rule and utilized the services of our technical assistance providers to provide additional outreach. The NDEP also involved our contracted Counties who aid in the implementation of the Ground Water Rule. As required by process, notifications of the regulation adoption Workshops were posted in all requisite library locations. In addition, the Workshop notice was mailed to 1920 individuals, including all public water systems, all certified water system operators, and a large number of engineering companies on file with the Bureau. The workshops were held in Las Vegas with 10 attendees, in Carson City with 21 attendees, and Elko with 14 attendees. The 1½ hour workshops fully described the modifications proposed and attendees were provided the opportunity to ask questions or comment on the proposed

amendments. As a result of this process, several questions were asked regarding certain technical aspects of the new rules and two individuals were present and provided support for Section 7 of this petition. No questions or comments resulted in changes to the proposed amendments.

At this point, I will explain the purpose of the proposed amendments included in the nine sections of this petition.

The <u>Section 1</u> amendment to NAC 445A.4525 proposes to update the version of the U.S. Code of Federal Regulations adopted by reference from July 1, 2006 to July 1, 2009. During this period, EPA:

- Promulgated the Ground Water Rule and Lead and Copper Rule Short-Term Revisions;
- Established two rules to modify testing procedures and establish alternative testing procedures for laboratory analysis of contaminants under the SDWA;
- Proposed a rule to make a minor correction related to the Stage 2 Disinfectants and Disinfection Byproducts Rule; and
- Published the final rule describing the design for the second Unregulated Contaminant Monitoring Regulation cycle.

I will address the EPA actions not associated with the Ground Water Rule and Lead and Copper Rule Short-Term Revisions first.

EPA established two rules to modify certain testing procedures and establish new alternative testing procedures for laboratory analysis of contaminants under the Safe Drinking Water Act. While testing procedures were modified or established federally during this period, the timing of our proposed adoption of the July 1, 2009 edition of 40 CFR does not adversely affect the regulated community. Nevada already has the authority in NAC 445A.454 to allow the use of [quote] "Any method for the selected contaminant or contaminants in the drinking water approved by the USEPA as an acceptable alternative test procedure for drinking water." This authority allows Nevada water systems to use any method approved by EPA – provided their

laboratory has the proper certification - without waiting for us to go through the regulatory adoption process each time there is a change.

EPA made a minor correction to the Stage 2 Disinfectants and Disinfection Byproducts Rule. EPA promulgated the Rule on January 4, 2006. A monitoring requirement for ground water systems serving 500-9,900 people was unintentionally excluded from a footnote to a table in the final rule, resulting in less routine compliance monitoring than intended for this category of public water systems. These public water systems should have been required to monitor for both Total Trihalomethanes and Haloacetic Acids concentrations at two locations. Due to the error, they were only required to monitor for either Total Trihalomethanes or Haloacetic Acids at two locations. This is not a new requirement, but an error that occurred when the tables were modified prior to publication of the final rule. This fix was published in the June 29, 2009 Federal Register and the correct monitoring requirements were included in the Workshops and hearing testimony when the SEC adopted the Stage 2 Rule last October.

EPA published the Unregulated Contaminant Monitoring Rule 2 – known as the UCMR2 – to describe the design for the second Unregulated Contaminant Monitoring cycle, including the monitoring and reporting requirements for the list of unregulated contaminants, with monitoring occurring during 2008-2010. The UCMR2 is directly implemented by the USEPA and is not part of the State primacy program. Some assistance from our agency was provided through a partnership agreement with the USEPA to help streamline communications and points of contact with the systems. Water systems required to monitor under this Rule have nearly completed this program. The intent of the UCMR2 is to gather occurrence and exposure data for the listed contaminants to determine whether to regulate the contaminants in future rule makings.

To conclude the adopt by reference provisions, and the primary purpose of this regulatory action, the NDEP is proposing to adopt into Nevada Administrative Code the Lead and Copper Rule Short-Term Revisions and Clarifications and the Ground Water Rule.

The adoption of the Lead and Copper Rule Short-Term Revisions and Clarifications has been made completely by reference with the update to the 2009 edition of 40 CFR Part 141 in Section

1, and, therefore, you will not see any other additional language in this petition addressing specific Rule requirements.

I will begin with a brief background on the Lead and Copper Rule and why the EPA amended it.

The Federal Lead and Copper Rule – the original Rule - was promulgated by US EPA on June 7, 1991 and applies to all non-transient non-community and community public water systems. In Nevada, there are currently 321 public water systems that must comply with the Rule. The goal of the Lead and Copper Rule is to protect water users from exposure to lead and copper in drinking water and reduce potential health risks associated with lead and copper. The Rule is unique because it requires testing of the inside of homes and buildings to determine the lead and copper levels at the consumer tap. Sampling locations are chosen with the highest potential for lead exposure and the number of locations range between 5 and 100 depending on the number of persons the system serves. The health risks associated with consuming water above the action level for lead are most acute in children, infants and unborn infants, and include delays in physical or mental development, deficits in attention span and learning ability. Adults over many years could develop kidney problems or high blood pressure. The effects of excess copper include stomach and intestinal distress, complications of Wilson's Disease, and chronic exposure may cause liver or kidney damage.

In 2004, the District of Columbia experienced incidences of elevated drinking water lead levels, which prompted EPA to initiate a comprehensive national review of the Lead and Copper Rule to evaluate the effectiveness of the rule. As a result of this review, EPA identified seven targeted rule changes intended to strengthen the implementation of the Lead and Copper Rule in the areas of monitoring, customer awareness and lead service line replacement in the short term. The short-term revisions do not address copper; provisions addressing copper will be considered in future revisions to the rule.

The Lead and Copper Rule Short-Term Revisions and Clarifications Rule was promulgated on October 10, 2007 and became effective December 10, 2009.

To summarize the seven rule changes:

The revisions require water system owners to receive approval from the State *before* adding a new source or making any long-term treatment change. This allows time for regulators and water systems to consult with one another about potential problems that may be associated with a change in water quality and the potential for leaching of lead and copper into the water supplied at the consumer tap. Previously, the rule required that systems notify the State within 60 days after making a change.

The revisions will now not allow water systems above the lead action level to remain on a reduced monitoring schedule.

The revisions further define sampling "sites" as [quote] "taps that can be used for human consumption." This ensures that samples are drawn from locations that have the highest risk for exposure to lead rather than taps not typically used for human consumption.

Clarifications now exist throughout the rule that explain when compliance periods begin and end, and systems on triennial monitoring are to maintain 3 years between each monitoring period.

Prior language was vague and allowed systems to collect samples over several years and go as long as six years and still meet the definition of triennial monitoring.

The revisions will require water systems to provide a notice of lead tap water monitoring results and steps to reduce lead exposure to consumers who occupy homes or buildings that are tested for lead. Previously, systems were not required to notify individual homeowners of their monitoring results.

The revisions update the public education requirements in the areas of message content, delivery requirements and the Consumer Confidence Report. The intent is to make the text shorter and easier to understand and have better outreach. The annual Consumer Confidence Report was modified to require all community water systems with a detection for lead to include information about the risks of lead in drinking water and ways to reduce exposure.

And lastly, the Lead and Copper Rule has provisions for lead service line removal and replacement. Lead lines that do not leach elevated levels of lead are deemed "replaced". The revisions specify situations when these lead lines must be reevaluated for their lead leaching potential. As a note, the Bureau of Safe Drinking Water is not aware of any Nevada systems that have lead service lines, however, lead can be leached from internal plumbing and fixtures.

The short-term changes finalized in these amendments are expected to ensure and enhance protection of public health by reducing exposure to lead in drinking water.

This petition also includes the proposed adoption of a new federal drinking water regulatory program – The Ground Water Rule which was promulgated by the US EPA in the Federal Register on November 8, 2006. The adoptions of the Ground Water Rule, and, the associated federal revisions necessitated by the promulgation of the Ground Water Rule, have been made by reference in Section 1 of this petition. Additional amendments for overall State implementation of the Rule are included in other sections of the Water Quality Regulations and are modified by Sections 2 thru 6. I will begin with a brief Background on the Rule and continue with an overview of the Rule requirements.

The 1996 Amendments to the Safe Drinking Water Act required EPA to develop regulations that require disinfection of ground water systems "as necessary" to protect the public health. The Ground Water Rule does not require disinfection for all Ground Water Systems; rather, it establishes a risk-targeted approach to identifying Ground Water Systems at risk of microbial contamination. This at-risk subset of Ground Water Systems will then be targeted to take corrective action – disinfection may be an appropriate corrective action. The Rule builds upon current drinking water programs - the Total Coliform Rule (TCR) and the Sanitary Survey Program to identify ground water systems at risk of fecal contamination. The Ground Water Rule applies to all public water systems using groundwater, including consecutive systems receiving ground water from a wholesaler and mixed surface water and groundwater systems unless all the ground water is treated along with the surface water prior to the first customer.

The Ground Water Rule became effective December 1, 2009. The NDEP, and two Contracted Health Districts are working with water systems to help them to comply with the new Rule.

There are 531 public water systems utilizing ground water sources and subject to the GWR in Nevada.

<u>The Ground Water Rule</u> then, is designed to identify ground water systems at risk to microbial contamination by monitoring of well or spring sources and identification of significant deficiencies found during sanitary surveys or other inspections.

The Rule utilizes two types of source water monitoring, "triggered" source water monitoring and "assessment" monitoring. Triggered source water monitoring is associated with the Total Coliform Rule. The Total Coliform Rule became effective December 31, 1990 and requires all public water systems regardless of classification, source water type or size to routinely monitor the distribution system for coliform bacteria. Coliform bacteria are organisms that are present in the environment and in the feces of all warm-blooded animals and humans. Coliform bacteria will not likely cause illness. However, their presence in drinking water indicates that pathogens - disease-causing organisms - could be in the water system. Most pathogens that can contaminate water supplies come from the feces of humans or animals. Testing drinking water for all possible pathogens is complex, time-consuming, and expensive. It is relatively easy and inexpensive to test for coliform bacteria. If a sample tests "positive" for coliform bacteria, the system must collect a set of repeat samples within 24 hours.

The Ground Water Rule, specifically requires, that the system also sample all ground water sources in use at the time the "positive" sample was collected and have it analyzed for a fecal indicator - a problem in the distribution system may be due to a problem at the source. The Ground Water Rule allows systems subject to the source water monitoring requirements to test their well or spring source for any one of three fecal indicators. In Nevada, laboratories are certified to analyze the fecal indicator *E.coli*, so Nevada systems will test for *E.coli*. Ground Water Systems that demonstrate to the State that they provide 99.99% or 4-log treatment for virus at the well or spring and conduct daily compliance monitoring to demonstrate that the treatment is reliable and effective do not have to conduct triggered source water monitoring,

because water from sources treated in this manner could not have caused the problem in the distribution system. The other type of source water monitoring, "assessment" monitoring is required at the State's discretion; it is intended for systems most susceptible to fecal contamination and can be used as an additional tool to identify risk. Assessment monitoring is used on a case-by-case basis.

Any system with a source that is *E.coli* positive must issue public notification to all of its water users within 24 hours of being notified of the positive result.

As mentioned, the Ground Water Rule also builds upon the Sanitary Survey Program. The Ground Water Rule requires the State to perform a sanitary survey of community Ground Water Systems once every three years, and non-community systems once every five years. This is a change from our current regulatory requirement of once every five years for all types of Ground Water Systems. Nevada has historically performed surveys of all groundwater systems at a minimum of once every 3 years. The state must notify the groundwater system of any significant deficiency identified during the survey. For clarity, I have included in this testimony the currently adopted definition of a significant deficiency. NAC 445A.4665 defines a significant deficiency as...

"any deficiency found at a public water system during a sanitary survey that is a violation of any provision of NAC 445A.450 to 445A.6731, inclusive, which may have the potential to cause a risk to public health. A significant deficiency includes, without limitation, unsanitary source conditions, treatment plant deficiencies, inadequate disinfectant contact time, cross connections, endangerment of sources, unsanitary storage and distribution of water, inadequate pressure, inadequate staff and any other deficiency of comparable significance."

Systems with significant deficiencies and sources found to be fecally contaminated during source water monitoring will be required to take a corrective action. There is no maximum contaminant level associated with the Ground Water Rule, an *E.coli* present source water sample is not a violation, but there is a requirement to undertake a Treatment Technique. The Treatment Technique must include one or more of the following corrective actions:

• Correct all significant deficiencies;

- Provide an alternate source of water;
- Eliminate the source of contamination; or
- Provide treatment that reliably achieves 99.99% or 4-log treatment of viruses.

Violations, then, associated with this Rule will not be based on an associated maximum contaminant level, but failure to comply with the Treatment Technique requirements.

Nevada regulations currently require correction of significant deficiencies including sources found to be fecally contaminated. The Ground Water Rule provides additional investigative tools to identify sources at risk to fecal contamination, provides for specific and timely corrective actions and requires public notification for uncorrected significant deficiencies and sources found to be *E.coli* positive.

So, in addition to adopting the Ground Water Rule, other changes to 40 CFR Part 141 were needed to support the Rule. EPA amended the Public Notification Rule to include public notification requirements for violations of the treatment technique requirements and for fecal indicator positive source samples; and, amended the Consumer Confidence Report Rule to include reporting of fecal contamination and uncorrected significant deficiencies in the annual Consumer Confidence Report.

As discussed in the opening Overview of our petition, the second purpose, of the proposed amendments to the NACs, is to revise portions of the Water Quality Regulations for overall implementation of the Ground Water Rule.

<u>Section 2</u> Includes a reference in NAC 445A.454 to the analytical methods associated with the fecal indicators monitored under the Ground Water Rule.

<u>Section 3</u> Amends NAC 445A.4655 to reflect the Ground Water Rule sanitary survey frequency requirements.

<u>Section 4, 5 and 6</u> provide a cross-reference in the Water Quality Treatment regulations to ensure that systems installing a new treatment plant to provide 4-log treatment of virus as an option under the GWR, comply with the provisions in the Rule.

- Section 4 will require that the system submit documentation indicating how the system will achieve 99.99% or 4-log treatment of virus. Please notice that this section has a "green line" erratum to fix an EPA-defined regulatory term;
- Section 5 will ensure that a new treatment plant complies with the specifications established in the Disinfection of water: General requirements and Use of chlorine requirements in the Design, Construction, Operation and Maintenance regulations. This section also has a "green line" erratum to fix a typo in the federal citation; and,
- Section 6 addresses records maintenance requirements associated with 4-log treatment of virus.

Again, the proposed amendments in Sections 2 through 6 are not more stringent than federal regulatory requirements, but update Nevada Administrative Codes to reflect certain details of the Rule and provide appropriate cross-references.

Presuming this petition is adopted, the NDEP will apply to the US EPA for primacy revisions to obtain Primary Enforcement Authority for the Lead and Copper Rule Short-Term Revisions and the Ground Water Rule this fall.

Moving through the agenda, Sections 5, 7, 8 & 9 address proposed amendments included in this petition related to general clean-up and one other needed change to a State regulatory requirement.

Revisiting Section 5, the NDEP is proposing to strike references to the Disinfection Byproducts monitoring requirements in the Standards for Disinfection section of the Water Quality Regulations. These subsections of 40 CFR Part 141 are appropriately referenced in other sections of the Water Quality regulations. This is a clean-up item since the referenced sections do not specifically address the application of disinfection.

<u>Section 7</u> Proposes to amend NAC 445A.6569 - the definition of a "Certified backflow prevention assembly tester" to include other credentialing entities. This regulation amendment was prepared at the request of the regulated community. The request originated from the Elko County Public Works Director, Mr. Lynn Forsberg, who expressed several difficulties that Rural Nevada water systems have in obtaining training and testing for backflow prevention assembly

testers. The restriction to only the California/Nevada section of the American Water Works Association poses numerous challenges that could be easily resolved by opening the regulation to other certifying entities such as the American Backflow Prevention Association, who are also recognized in Utah, Idaho and Oregon as approved credentialing entities.

Prior to proposing the amendment, the NDEP researched options and conducted meetings with members of the regulated community who specialize in backflow prevention. Research resulted in a determination that the American Backflow Prevention Association's program is substantially equivalent to, and equally protective as, that of the Cal/Nevada section of the American Water Works Association. Therefore, the proposal explicitly adds the American Backflow Prevention Association as a certification organization approved by the NDEP. In order to streamline the process of including additional entities in the future, and possibly spur entrepreneurial spirit and local economic growth in the industry, the amendment also includes the ability for the NDEP to evaluate and approve other equivalent certification programs.

<u>Section 8</u> A proposed amendment to NAC 445A.6676 extends the section reference to include compliance with the Groundwater Treatment sections of the Water Quality Regulations. This proposed amendment maintains consistency in the regulations by cross-referencing the Water Quality Regulations and the Design, Construction, Operation & Maintenance regulations.

<u>Section 9</u> And the final proposed amendment included in this petition is to NAC 445A.66825 and serves to clarify that when alternative disinfection practices are used for microbial inactivation of surface water or groundwater under the direct influence of surface water, and are specifically regulated by the Surface Water Treatment Rule through NAC 445A.526, that groundwater systems utilizing the listed technologies will not have to comply with such requirements.

That concludes my testimony. I will, of course, be happy to answer any questions you may have. Should you have questions specific to the Lead and Copper Rule, I have Ross Cooper the Bureau Lead and Copper Rule expert with me here today. Thank you.

ATTACHMENT 5

Malone Statement on Regulation R040-10 - 2 pages

NOTES FOR JUNE 17, 2010 SEC HEARING: REPEAL OF NEVADA CAMR PROGRAM

Adele Malone, Supervisor, Planning and Modeling Branch, BAQP

HELLO: Mr. Chairman, Commissioners

WHAT: Agenda Item 5) Regulation R040-10

- Proposing to repeal the NV Clean Air Mercury Rule program, or NV CAMR.
- This program was adopted by the Commission in September of 2006. It was developed in response to a federal requirement for states to control mercury emissions from <u>coal-fired electric generating units</u> at power plants (a cap & trade program) (May '05 federal CAMR).
- The federal rule was challenged, and in February 2008 the US Court of Appeals (District of Columbia) struck down the federal CAMR; and so, the federal requirement for the Nevada CAMR program no longer exists.
- More importantly, the Nevada program adopted many of the key points of the federal program. Thus, our program could not be implemented after the federal CAMR was vacated. Actually, the Nevada program was never implemented because implementation was to begin in 2010 (phase I of fed CAMR, 2010-2017, 570 lb/yr allowance); the proposed repeal is basically a clean up of the NAC.
- USEPA is currently working on a Federal Utility Boiler MACT rule to address Hg emissions from power plants: plan to propose a rule by March 2011, final 11/11(hang up is HCl).]

SPECIFIC CHANGES:

• I don't plan to go through R040-10 line by line. It's 60 pages long and half of that is just a listing of the repealed sections of the NV CAMR program, NAC 445B.3711 through 445B.3791. The rest of the petition consists of revisions to the remaining air permitting program regulations to remove references to the CAMR program.

PUBLIC PROCESS:

Public Workshop – May 13, 2010 at NDEP offices in Carson City w/video conference to Las Vegas NDEP offices; 12 public attendees, only one interested in the proposed CAMR repeal (Newmont Nevada Energy). No public comments at workshop or during public comment period.

RECOMMENDED ACTION: Repeal the NV CAMR Program. **QUESTIONS?**

ATTACHMENT 6

Remer Statement on Regulation R022-10 - 3 pages

State Environmental Commission June 17, 2010 LCB File Number R022-10

Mr. Chairman, members of the Commission, for the record, my name is Greg

Remer and I'm the Chief of the Bureau of Air Quality Planning. I'm here to

present LCB File Number R022-10, which consists of amendments to the

Alternative Fuels in Fleets regulations. These amendments, if approved, will be

permanent.

During the 2009 Legislative session, several changes to Chapter 486A of the

Statutes were made. Generally, the changes were made to simplify the way the

program functions and to provide more flexibility in the statute and placed more

emphasis on the details of the program being established in the Administrative

Code. The changes also placed more authority with the Commission to define

acceptable fuels and set standards. As a result of the statutory changes, the

Division has been working with affected government fleet operators and other

stakeholders to amend NAC 486A to bring the Administrative Code consistent

with the revised statutes. The regulations before you today are the culmination of

that effort. Basically, the significant changes to the Code result in new definitions,

revised reporting procedures and clarify the variance process.

Generally, Sections 2 through 7 create new definitions and modify existing definitions needed to align with the Statute. Section 8 creates additional exemptions from the program for law enforcement, emergency response or fire suppression, and national defense vehicles, and fleets subject to the Federal EPACT program.

Section 9 through 11 clarify the existing language of the alternate fuel designation process, vehicle acquisition rate and provide more detail for the fleet reporting requirements. Section 12 clarifies the variance process and provides for up to a 3 year variance that would be authorized by the Commission. This change provides consistency with other air program regulations by authorizing only the Commission to grant variances to its regulation, rather than the Division providing this approval. Sections 13 through 15 provide minor language changes. Section 16 repeals an un-used definition. Again, these changes are straightforward revisions that are primarily related to the changes in the statutes.

The Division conducted a work shop for these amendments in Carson City and Las Vegas (via video link) on May 13, 2010 to receive comments. All of the parties agreed that the changes that we are proposing today are necessary and provide needed clarification and improvements to the program.

I would also like to mention that there were a couple of issues raised at the end of the workshop. These issues relate to the provision to allow reformulated gasoline (RFG) as an alternative fuel (in Section 7) and the 90% vehicle purchase rate provision (in Section 10). Because these issues were raised at the end of the process, NDEP was not able to completely vet these issues with all of the stakeholders. The NDEP has committed to the stakeholders that we will work to address these issues in the near future and would return to the Commission with any proposed changes.

The NDEP recommends that Petition R022-10 be adopted as proposed. I'd be happy to answer any questions you may have.

ATTACHMENT 7

Greenhouse Gas Emissions Tables/Graphs - 7 pages

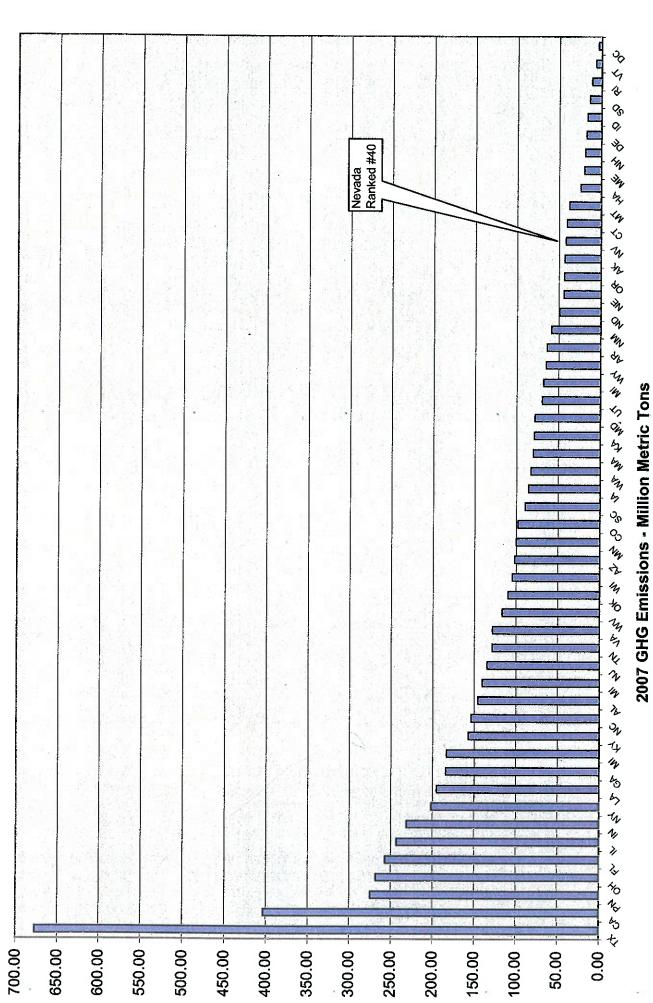
GREENHOUSE GAS EMITTING SECTORS
(COZ equiv.) (Million Metric Ton / Year) (All into Metri
(Million Merric Ton / Year) 2.82 73.63
(COZ equin.) (COZ equin.) (COZ equin.) (Million Metric Ton / Year) 2.82 2.33
iNDUSTRIAL (COZ equiv.) (COZ equiv.) (Million Merric Ton / Year) 2.82 2.33
INDUSTRIAL (CO2 equiv.) (Million Meric Ton / Year)

					GREENHO	Greenhouse gas emitting sectors	SECTORS	
STATE	TOTAL AMOUNT OF CHG EMISSIONS REPORTED (CG2 equiv.) (2007)	STATE POPULATION	CHG EMISSIONS per CAPITA	COMMERCIAL (CO2 equiv.)	INDUSTRIAL (CO2 equiv.)	RESIDENTIAL (CO2 equiv.)	TRANSPORTATION (CO2 equiv.)	ELECTRICAL POWER (CO2 aquiv.)
	(Million Metric Ton / Year)		(Metric Ton / Person)	(Million Metric Tol! / Year)	(Million Metric Ton / Year)	(Million Metric Ton / Year)	(Million Metric Ton / Year) (Million Metric Ton / Year)	(Million Metric Ton / Year)
MONTANA	37.70	974,989	38.67	0.87	6.69	1.59	8.92	19.62
NEW MEXICO	58.55	2,009,671	29.13	1.52	8.59	2.23	15.38	30.83
TEXAS	676.75	24,782,302	27.31	10.26	221.08	12.33	203.51	229.57
COLORADO	98.12	5,024,748	19.53	3.76	13.11	7.74	31.11	42.41
ОКІ.АНОМА	109.30	3,687,050	29.64	2.68	21.37	3.94	32.19	49.12
WYOMING	64.57	544,270	118,64	0.83	10.96	0.93	8 0.	43.05
NEBRASKA	43.87	1,796,619	24.42	1.82	6.97	2.49	12.48	20.12
SOUTH DAKOTA	13.78	812,383	16.36	0.71	2.73	1.04	6.34	2.96
NORTH DAKOTA	48.98	646,844	75.72	1.05	7.74	1.17	7.09	31.92
INDIANA	230.83	6,423,113	35.94	5.4	52.99	8.95	44.99	118.8
OHIO	267.67	11,542,645	23.19	10.18	39.23	18.82	72.01	127.43
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			-					

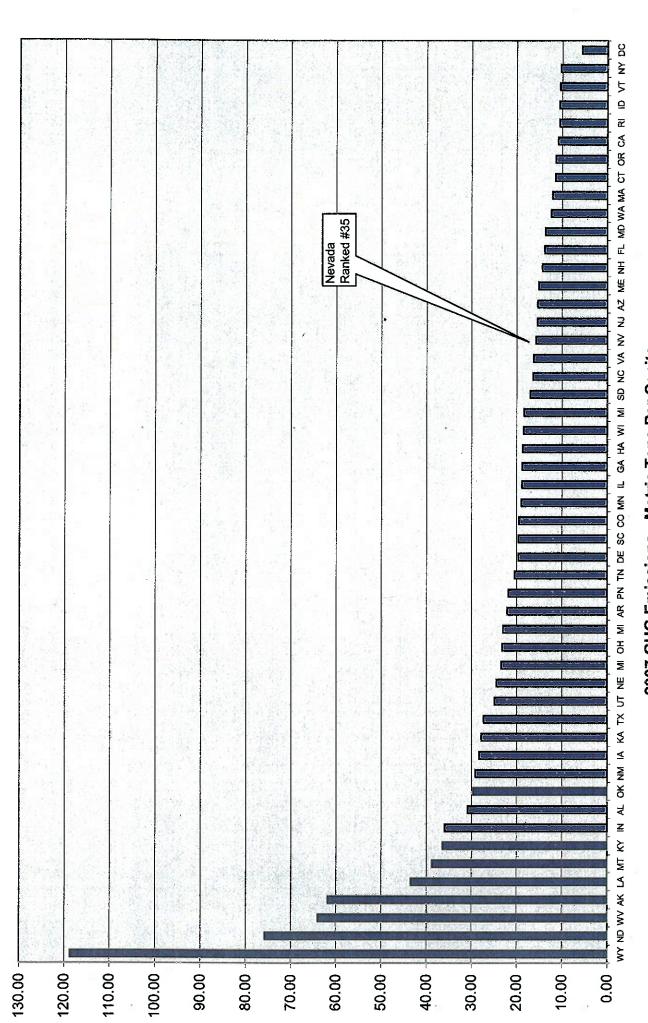
					GREENHO	GREENHOUSE GAS EMITTING SECTORS	SECTORS	
STATE	TOTAL AMOUNT OF GHO EMISSIONS REPORTED (CO2 equity.) (2007)	STATE POPULATION	GHG EMISSIONS per CAPITA	COMMERCIAL (CO2 equiv.)	INDUSTRIAL (CG2 equiv.)	RESIDENTIAL (CO2 equiv.)	TRANSPORTATION (CO2 equiv.)	ELECTRICAL POWER (COZ equiv.)
	(Million Metric Ton / Year)	(2008)	(Metric Ton / Person)	(Million Metric Ton / Year)	(Million Metric Ton / Year) (Million Metric Ton / Year)	(Million Metric Ton / Year)	(Million Metric Ton / Year)	(Willion Metric Ton / Year)
WISCONSIN	104.38	5,654,774	18.46	5.59	15.46	9.25	30.73	43.36
ILLINOIS	242.83	12,910,409	18.81	11.83	38.92	24.54	72.81	94.73
IOWA	85.19	3,007,856	28.32	3.92	15.78	4.73	22.08	38.68
KANSAS	78.46	2,818,747	27.84	1.87	15.55	38.5	19.33	. 37.84
MICHIGAN	182.98	9,969,727	18.35	10.13	23.37	20.77	54.74	73.97
PENNSLYVANIA	274.30	12,604,767	21.76	12.14	46.03	21.81	71.46	122.85
MINNESOTA	98.68	5,266,214	18.96	5.91	15.17	8.74	36.08	33.96
MISSOURI	140.04	5,987,580	23.39	3.92	12.95	89.9	42.35	74.14
KENTUCKY	156.80	4,314,113	36.35	2.50	24.10	3.43	34.57	92.90
TENNESSEE	128.39	6,296,254	20.39	3.48	20.21	4.02	45.66	\$5.02
ALABAMA	145.24	4,708,708	30.84	1,91	21.16	2.40	35.78	84.00

CAUCHO CHEACTH COLUMN CHAIRLING MARTIN COLUMN CAUCHO CAU	STATE	TOTAL AMOUNT OF GHG EMISSIONS REPORTED (COZ	STATE	GHG EMISSIONS per	COMMERCIAL (CO2 equiv.)	INDUSTRIAL (COZ equiv.)	TRIAL RESIDENTIAL TRANSPO quiv.) (CO2 equiv.) (CO2 e	TRANSPORTATION (CO2 equiv.)	ELECTRICAL POWER (CO2 equiv.)
63.70 2.589.400 22.05 1.85 10.56 2.05 20.05 20.05 20.02 20.02 194.83 4.482.77 4.530 2.70 11.34 1.53 2.17 60.06 20.06 194.83 2.261.27 1.32 4.35 1.234 1.15 2.17 60.06 194.64 9,623.27 11.32 3.77 16.23 6.77 66.46 195.56 1.53.66 1.53 1.53 1.53 1.43 3.14 116.28 3.580 1.53 1.53 1.53 1.54 3.14 116.28 3.580 1.53 1.53 1.54 3.14 3.14 116.29 1.515,777 63.64 1.21 0.04 0.02 1.23 201.25 13.54,46 1.53 1.54 1.54 1.54 3.13		(Million Metric Ton / Year)		(Metric Ton / Person)	(Million Metric Ton / Year)		(Million Metric Ton / Year)		(Million Metric Ton / Year)
67.81 4,482,178 4,539 2.70 10.135 2.17 80,55 256,27 18,277 1,70 11.184 1,53 26,28 164,04 9,829,271 19,29 1,524 1,19 1,1472 164,04 9,829,271 19,29 1,53 1,13 1,13 1,1472 155,356 9,380,284 4,587 1,53 1,53 1,53 1,13 1,1472 66,46 117,36 7,882,280 1,637 3,22 1,136 7,44 86,20 84,20 116,38 1,584,777 85,36 4,58 1,136 7,44 86,26 116,38 1,584,777 85,36 1,24 1,513 1,25 1,22 201,35 1,864,463 1,63 1,54 1,54 1,54 1,53 3,38 2,986,57 8,64 1,27 0,04 3,64 1,22 2,01,35 1,864,463 1,54 1,54 1,54 1,54 1,53	ARKANSAS	63.70	2,889,450	22.05	1.85	10.56	2.05	20.92	28.32
57.51 2.561,986 22.37 1.70 11.144 1.63 26.36 164.44 9,629,211 18.72 3.77 18.23 1.73 114.73 153.56 9,280,244 4,581,242 1.63 1.53 1.53 1.33 1.188 3.188 153.56 9,280,884 16.37 3.49 17.36 1.44 66.46 3.188 177.95 7,887,800 16.23 4.49 17.36 7.44 66.56 116.38 3.38 5.96.4 1.21 0.04 0.82 1.22 201.25 19,561,463 10.30 28.89 16.66 36.11 77.35	LOUISIANA	194.93	4,492,076	43.39	2.70		2.17	50.65	38.07
256.27 18.527,969 13.82 4.33 12.34 17.6 114.73 184.04 9,872,211 18.72 3.17 18.28 6.77 66.46 185.36 4,581,262 16.57 3.17 18.28 1.38 31.88 153.36 9,380,884 16.37 3.32 13.70 5.70 54.30 116.38 1,816,777 63.39 1.54 15.13 1.44 56.56 201.25 19,561,453 10.20 26.83 1.21 0.04 0.82 1.22	MISSISSIPPI	67.81	2,951,996	22.97	1.70	11.04	1.63	26.38	27.06
184.04 \$829.21 18.72 3.17 18.28 6.77 66.46 153.36 \$3.90,24 4,561.242 19.59 1.53 1.35 1.88 31.88 152.36 \$3.90,284 16.37 3.32 13.70 5.70 54.30 127.95 7.882.580 16.23 4.58 17.36 7.44 56.56 3.38 5.84 1.24 0.04 0.82 1.23 201.25 19.541,453 10.30 26.83 15.06 36.11 73.35	FLORIDA	256.27	18,537,969	13.82	4.33	12.34	1.76	114.73	123.10
153.56 9,380,864 16,37 3,32 13,36 1,48 31,48 31,48 31,48 127,95 7,482,590 16,23 4,58 17,45 7,44 56,56 1,54 15,13 1,513	GEORGIA	184.04	9,829,211	18.72	3.17		6.77	66.46	89.36
153.56 9,380,884 16.37 3.92 13.70 6.70 54.30 127.36 7,882,590 -16.23 4.98 17.35 7.44 56.56 116.38 1,619,777 63.95 1.54 1.54 15.13 1.89 12.35 201.25 19,541,453 10.30 26.83 16.06 36.11 73.35	UTH CAROLINA		4,561,242	19.59	1.53	13.36	1.88	31.88	40.68
127.95 7,882,590 16.23 4.98 17.35 7.44 56.56 116.38 1,819,777 63.95 1.54 1.54 15.13 1.89 12.35 3.38 599,657 5.64 1.21 0.04 0.82 1.22 201.25 19,541,453 10.30 26.93 15.06 36.11 73.35	RTH CAROLINA		9,380,884	. 16.37	3.92	13.70	5.70	54.30	75.94
116.38 1,819,777 63.95 1.54 15.13 189 12.35 3.38 5.94 1,21 0.04 0.82 1,22 201.25 19,541,453 10.30 26.93 15.06 36.11 73.95	VIRGINIA	127.95	7,882,590	-16.23	4.98	17.95	7.44	96.56	41.03
3.38 599,657 5.64 1.21 0.04 0.82 1.22 201.25 19,541,453 10.30 26.93 15.06 36.11 73.95	FST VIRGINIA	116.38	1,819,777	63.95	1.54	15.13	1.89	12.35	85.48
201.25 19,541,453 10.30 26.93 15.06 36.11 73.95	DISTRICT OF COLUMBIA	3.38	599,657	5.64	1.21	0.04	0.82	1.22	0.08
	NEW YORK	201.25	19,541,453	10.30	26.93	15.06	36.11	73.95	49.19
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STATE TUTAL AMOUNT OF CHIG STATE CHICA CHICA						GREENHO	GREENHOUSE GAS EMITTING SECTORS	SECTORS	
19.02 1,224,575 14.36 1.034 19.02 1,324,575 14.36 10.54 1.05 1.034 1.054 1.054 1.05 1.054 1.05 1.054 1.05 1.054 1.05 1.054 1.05 1.054 1.05 1.05 1.054 1.055 1.05		TOTAL AMOUNT OF GHG EMISSIGNS REPORTED (CO2 SAULY) (2007)	STATE POPULATION	GHG EMISSIONS per CAPITÀ	COMMERCIAL (CO2 equix.)	INDUSTRIAL (CO2 equiv.)	RESIDENTIAL (CO2 equiv.)	TRANSPORTATION (COZ equiv.)	ELECTRICAL POWER (CO2 equiv.)
134.26 8,707.739 15.42 10.34 15.83 11,10 1,024,575 1,436 1,33 0.88 11,10 1,023,209 10.54 1.35 0.61 40.24 3,518,288 11,144 3.26 2.45 17,38 885,122 115,44 0.67 3.26 77,94 5,699,478 13,57 4,58 5,59 79,90 6,683,587 12,12 5,25 4,66		(Million Metric Ton / Year)	(2008)	(Metric Ton / Person)		(Willian Metric Ton / Year)	(Million Metric Ton / Year)	(Million Metric Yon / Year)	(Million Metric Ton / Year)
19.02 1,324,575 14,36 1,35 0,86	NEW JERSEY	134.29	8,707,739	15.42	10.94	15.83	16.11	72.19	19.21
6.49 621760 10.54 1.05 0.51 6.49 6.59 2.45 1.05 0.51 1.7.38 885,122 115.64 0.67 3.26 2.39 77.94 5.599,478 12.12 5.25 4.55 4.65	EW HAMPSHIRE	19.02	1,324,575	14.36	1.33	0.88	2.81	7.36	6,63
6.49 621,760 10.44 0.59 0.51 40.24 3,518,288 11.44 3.26 2.45 17.38 885,122 19.64 0.67 3.32 19.93 1,318,301 15.12 1.36 2.39 77.94 5,699,478 13.67 4.68 5.80 79.90 6,593,587 12.12 5.25 4.66	RHODE ISLAND	11.10	1,053,209	10.54	1.05		2.30	4.33	2.81
40.24 3,516,288 11.44 3.26 2.45 17.38 885,122 19.64 0.67 3.92 19.93 1,316,301 15.12 1.36 2.39 77.94 5,699,478 13.67 4.58 5.80 79.90 6,693,587 12.12 5.25 4.66	VERMONT	6,49	621,760	10.44	65.0	0.51	1.56	3.82	0.01
17.38 885,122 19.64 0.67 3.92 19.93 1,316,301 15.12 1.95 2.39 77.94 5,699,478 13.67 4.58 5.80 79.90 6,563,587 12.12 5.25 4.66	CONNECTICUT	40.24	3,518,288	11.44	3.26	2.45	8.31	17.46	8.77
19,93 1,316,301 15.12 1.95 2.39 77,94 5,699,478 13.67 4.58 5.80 79,90 6,593,587 12.12 5.25 4.66	DELAWARE	17.38	885,122	19.64	0.67	3.92	1.02	5.21	6.57
77.94 5,699,478 13.67 4.58 5.80 79.90 6,583,587 12.12 5.25 4.68	WAINE	19.93	1,318,301	15.12	1.95	2.39	4.03	8.96	2.59
79.90 6,583,587 12.12 5.25 4.66	MARYLAND	77.94	5,699,478	13.67	4.58	5.80	6.52	31.34	29.70
	ASSACHUSETTS	79.90	6,593,587	12.12	5.25	4.66	13.46	33.15	23.38
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Data Source: www.epa.gov/climatechange/emissions/state_energyco2inv.html



2007 GHG Emissions - Metric Tons Per Capita Data Source: www.epa.gov/climatechange/emissions/state_energyco2inv.html