APPROVED 5/7/2015

PLANNING COMMISSION REGULAR MEETING
COUNCIL CHAMBERS, RICHMOND CITY HALL
450 Civic Center Drive, Richmond, CA
April 3, 2014
6:30 p.m.

COMMISSION MEMBERS

Sheryl Lane, Chair	Eduardo Martinez
Roberto Reyes	Andrew Butt
Ben Choi	Marilyn Langlois
Melvin Willis	

The regular meeting was called to order by Chair Lane at 6:35 p.m.

Chair Lane led in the Pledge of Allegiance.

ROLL CALL

Present: Chair Lane, Vice Chair Choi; Secretary Langlois, Commissioners Butt, Martinez, Reyes and Willis

Absent: None

INTRODUCTIONS

Staff Present: Lina Velasco, Senior Planner; Carlos Privat, Assistant City Attorney

MINUTES - None

AGENDA

Chair Lane provided an overview of meeting procedures for speaker registration, public comment and study session protocols.

CONSENT CALENDAR - No Items

BROWN ACT – PUBLIC FORUM – No speakers

STUDY SESSION

1. **PLN13-108: Richmond South Shoreline Specific Plan -** PRESENTATION of the recommended Land Use Map to be used as the basis for completion of the Draft Richmond South Shoreline Specific Plan (SSSP). The SSSP is a long-term planning document intended to facilitate the creation of a sustainable shoreline district providing jobs, housing, transportation options, entertainment, and recreation in the Plan Area. The Plan Area consists of 220 acres located in the City of Richmond, south of Interstate 580. City of Richmond, Applicant. Planner: Hector Rojas. Tentative Recommendation: **Hold Over to 4/10/2014**

This item was held over to April 10, 2014.

2. **PLN11-089: Chevron Refinery Modernization Project** - PRESENTATION providing an overview of the Chevron Refinery Modernization Project and the Revised Draft Environmental Impact Report (EIR) for the project located at 100 Chevron Way/841 Chevron Way (APNs: 561-030-001, -002,-003, -005; 561-040-013, -014, -015, -016, -017; 561-080-001, -002, -003, -005, -006, -007; 561-090-003,-004; 561-100-003, -009, -010; -017, -025, -037, -038, -042, -043, -044, -047, -048, -049; 561-110-020, -022, -029; 561-110-034, -035, -036, -041, -044; 561-390-001, -003, -004, -016; 561-400-008; 561-410-002, -003). M-4, Marine Industrial/M-3, Heavy Industrial/M-2, Light Industrial/CRR, Community and Regional Recreation District. Chevron USA Inc., Owner; Chevron Products Company, A Division of Chevron USA Inc., Applicant. Planner: Lina Velasco

Ms. Velasco said staff will provide an overview of the Chevron Modernization project and the Draft EIR which was prepared to analyze the potential environmental effects of the project. The study session is being held in preparation of the hearing to receive comments at the April 17th Planning Commission meeting. To assist the City in this presentation are key members of the City's consulting team; Jennifer Hernandez and Paula Knight will begin the presentation by providing some legal background, project overview and discussing air quality and greenhouse gases. Dr. Doug Daugherty of Environ will discuss public safety and Lynnette Diaz from Urban Planning Partners will provide a brief summary of other EIR chapters or mitigation measures where identified to reduce potentially significant impacts.

Ms. Velasco also recognized in the audience Dr. Shari Libicki of Environ and Tom Hogan from Turner Mason and Company who is the City's refinery specialist and are available to answer questions. Also, Christina, Elizabeth and Gavin are present and available as well.

Staff anticipates the presentation tonight will be one hour and respectfully asks that questions be reserved until the end. Before passing the microphone to Jennifer Hernandez, she acknowledged the hard work the consultant team put in which staff believes is a very thorough and robust EIR, analyzing the potential impacts of this project.

Jennifer Hernandez said she has had a tremendous experience working with the City and its experts. She said their presentation is designed to provide an overview of the draft EIR before focusing on issues that are greater interest and also to have a framework of the entire document and process. Yesterday, they began a formal workshop process for the Draft EIR. They had 11 hours of workshop time where they provided an overview presentation and then each of the subject matter experts that prepared various parts of the EIR were available to have conversations with people who came to the workshop. This was part of a process beyond what CEQA requires. As the Chair pointed out, there will be the ability to submit comments on the record on April 17th and now a 45-day written comment period that is open to those wanting to submit written comments. They will take the comments, consider them, reprint them and respond to them as part of the final EIR process.

Ms. Hernandez said she is a lawyer which is a little unusual but it is appropriate here because they are here because of a lawsuit. The original EIR for the Chevron Renewal Project was determined by the court to be invalid and the City was ordered to prepare a new EIR before allowing the project to be reconsidered and approved or not. Before the Commission is a permit application to allow the project to recommence and a full EIR. She says full EIR even though the court said there were a couple of things wrong with it. They went into a lot more detail than what the court said needed to be addressed for a couple of reasons: 1) Chevron changed its project and she will talk about the scope of the original and new project; and they had new circumstances, new laws and a new baseline in CEQA since review of the original project, so

the entire EIR was updated. The court initially said that the project description was confusing and arguably inaccurate because it was not clear whether Chevron would be processing heavier crudes. It was to be processing higher sulfur crudes but questioned gravity. The court found that part of the record was confusing and wanted part of the EIR record fixed on that point; 2) if there are changes in the crude stock, what happens with air emissions? What are the impact associated with varying the kinds of gas and crude processed at the refinery? And 3); the earlier EIR came out at the point when CEQA was just hitting the turning point of needing to study greenhouse gas (GHG) in detail and the EIR as approved did not specify what GHG mitigation measures were.

Ms. Hernandez gave the project overview and she said there are a few topics in the EIR they will go deeper into and some they will just touch on due to their lack of relevance. She will present the differences from the 2008 project and this project. This project includes as major features a hydrogen plant replacement and a variety of improvements to pieces of the refinery that remove or otherwise process sulfur so the project is still very much about allowing the refinery to process higher concentrations of sulfur in crudes stocks and indeed to remove them, and a combination of hydrogen needed to remove sulfur and the treatment units needed to remove sulfur are the heart of this project.

The earlier project looked at other fairly large components that have now been dropped, such as a new co-gen plant which had been proposed and a new plan to produce more gasoline. The project also includes a suite of components and features that actually have environmental benefits. One of the things they can do with CEQA is to require mitigation. Another thing they can do is have a project proponent volunteer to do things in advance that would reduce impacts. Here they have a combination of things that Chevron has proposed to do and the City is actually turning around and requiring them to do to reduce impacts. Some are actually inherently part of the project so the technology Chevron wants to install is newer and it has more energy efficiency. It has lower emissions. It requires the project to be built and include low NOX burners and these are cleaner burners than it is replacing. There are some features inherently cleaner. There are other features that are built in to reduce otherwise significant impacts and they will talk more about cleaner engines coming in on ships than they did before.

As she is talking about the environmental impact overview, Ms. Hernandez said another big piece of this project in the EIR became the response to the fire in August of 2012. There is a substantially beefed up public safety section and project proponent proposals that address safety issues and are intended to enhance safety at the refinery including replacing further piping circuits in the crude unit. So there are project features that are part of the hydrogen approval process and then there are project features that are part of the safety upgrade program. That really makes this modernization project distinct from the original 2008 renewal project.

In getting to the Draft EIR, Ms. Hernandez stated CEQA requires that they look at over 100 questions that are designed to elicit conclusions on whether a project could cause significant adverse impact to the environment. Questions start with aesthetics and agriculture and go all the way to water supply. Methodically going through each of these questions and analyzing the project in relation to each of these questions is really the heart of the EIR. It is Volume 1 of 3 that actually comprise the EIR. She said she does not think any of them have that to carry that around right now because each of those volumes are 3-4 inches each. The entirety of the story for all of these impacts is told in the first volume and detailed technical studies associated with some topics are in Volumes 2 and 3. After a lot of work, they have gotten to the point of having no significant adverse impacts associated with this project. In some cases they have beneficial

effects, in some cases they have been able to mitigate to avoid what would otherwise be adverse impacts, but they come to the Commission with a project that has no significant adverse impacts in the opinion of the expert team that has presented this with considerable direction from the City management group that truly want there to be no adverse impacts to the environment. This is an extraordinary achievement and it took a lot of work. Chevron was cooperative and pretty creative in getting to this.

One of the ways Chevron was creative in getting there is proposing a concept of no net increase in air pollution. CEQA allows the City to require mitigation for significant adverse impacts. Regarding when an impact is significant, there are various laws, regulations and thresholds and guidelines. The BAAQMD allows factory type projects to emit up to 10,000 pounds annually of certain kinds of pollution and they view that amount of additional pollution as not significant for CEQA purposes. They would be able to mitigate to less than significant but that would still mean 10,000 extra pounds. Chevron proposed and they certainly heartily endorse the concept of going past what CEQA requires and getting to no net increase in pollution. This no net increase is a project objective of Chevron and they are requiring Chevron to live up to that with mitigation measures that go beyond what CEQA normally requires. No net increase is also true for criteria air pollutants, GHGs and health risks from toxic air pollutants.

Another thing the project and EIR does is look at how full the refinery runs. They now have a very clear understanding that the fuller a refinery is, the more pollution it emits. It turns out that the conclusion is much more a function of how full a refinery runs than what the refinery runs. For all of these air quality topics, they went to independent experts in refinery operations and air emissions from Environ and elsewhere, and after those experts had scrubbed this story, they took their assessment to the BAAQMD and asked them to review all of the numbers for accuracy and they did. The air emission numbers in the EIR have been vetted with the BAAQMD which spent hundreds of hours in getting these numbers correct. This is based on public data and no secret or confidential data is being used. The process is very transparent, it was provided by Chevron and used in the EIR and it is all out for public review.

In the public safety context, they did a similar process with the County in terms of reviewing not just all laws and regulations and all refinery practices, but they found a refinery expert on corrosion who came in and spent 4-5 weeks at the refinery, addressing paperwork and meeting with people to come up to his own assessment of what it would take to make sure the project was safe. There are dozens of recommendations and those then turned into mitigation requirements. They also worked with the County to ensure they did not just have their expert evaluation completed but also support from the County in this endeavor.

Ms. Hernandez said in the list of 100 topics, they came to a good number of complicated topics that required detailed analysis and mitigation; air quality, greenhouse gas, hydrology, public safety, biology, cultural, noise, transportation which all have analysis and mitigation. Because this is an industrial project at an existing industrial site many topics they did not believe were significant or required mitigation but they were studied nonetheless in detail. These range from aesthetics to utilities and services. She said while she is not the most aesthetically sensitive person, they have a picture of what the refinery is now and of what the refinery would exist if this project were approved. It looks like the same refinery, but there are differences. Each of these topics that did not require mitigation is still studied in detail in the EIR.

Air quality did require mitigation. In fact this was the most complicated of the topics they took on. It was complicated because the court said, “tell us what happens with air emissions if the refinery accepts different kinds of crude, different gravity, different constituents” and it turns out

that the answer to that question depends not just on what kinds of crudes go through but on how full the refinery is. The refinery during what they called the baseline period right after the application was filed between 2008 and 2010 ran at roughly 89% of its permitted capacity. 89% resulted in published emissions validated by the Air District and the California Air Resources Board for GHGs but this was their baseline of routine refinery operations. Tom Hogan of Turner Mason built a model of how the refinery operates that allows different kinds of crude stocks and blends of gas oil and crude stocks to come into the refinery, get pulsed through, and then split up between the various refinery units to make refined products. That unit rate model was designed to tell them how full each of the major components of the refinery got depending on what kind of crude was being fed it. If the crude was too heavy, certain parts of the refinery filled up soon. If the crude was too light, other parts of the refinery filled up soon. It turns out that the refinery has a pretty narrow range of gravity where it can operate full. It also turns out that based on the air emissions data that came off of this unit rate model, the more the refinery operates full the higher the emissions are. They looked at scores of different kinds of crude throughout the world, including Bakken and tar sands and Kern River that are not usually or cannot in some cases every be accepted by this refinery, but they looked all over and came up with 19 different scenarios and 19 different blends of crude and gas oils that they analyzed in detail. They have a model that allows them to do even more. Those 19 were picked because they represent a clump in the middle that allows the refinery to run really full and then outer edges, a lot more sour, higher in sulfur, a lot heavier, a lot lighter, to see what happens-where are the pinch points in the refinery depending on those kinds of qualities of the crude oil. That unit rate model is totally foundational to the rest of the air analysis and it is an unusual feature. She has never seen it in the EIR world before but it did tell them the answer to the question asked of the court and to the refinery, depending on the quality of crude that is accepted.

They also used that same approach to look at what happens if the project does not get approved. The refinery currently has permitted capacity to go to 100% even though it operated at 89%. It is the case they can go to 100% not really in real life, but legally. In real life they though it was important to tell the community what is more likely. 100% is not very likely. More than 89% could happen in real life, and in fact there's a federal study of western refineries that show the high ones which operate at roughly 93%. So they pushed this refinery output out to 93% of its permitted capacity and presented that as the project. That one fact, assuming they would push refinery production higher meant across the board impacts in all categories that would occur and also allowed them to see what would happen with the project. And with the project, some of those impacts actually dropped to less than baseline. The refinery here operates full, at a relatively narrow range. They concluded it was foreseeable that the project would process slightly heavier crudes as it was processing higher sulfur crudes. That correlation; slightly heavier plus higher sulfur they also carried through other refinery constituents that they were asked to look at. The EIR looks at all those correlations and addresses each.

Even though the refinery modernization project is only affecting a handful of units at the refinery physically and those are highlighted in yellow, the unit rate model just described looked at all of the units on the screen before the Commission. She said it is complicated, because if you affect one part of the refinery it is conceivable you affect another. So this model is not trivial. It has been made available to people who have asked for it. To operate it themselves it takes a little tutorial and Tom Hogan can and has provided this.

Based on the unit rate model or how full different units in the refinery run, they looked at the question of air emissions. They looked at 93% and 100% scenarios. What this really means is they looked at what happens if the refinery's crude unit runs at 93% of its capacity and the crude

unit runs at 100% of its capacity. Then there are 3 to 4 gateway units at the refinery that accept gas oil which partly refined crude oil sent by ship that can be added to the refinery after the crude unit. They filled up those gas oil units also at 93% and 100%. So when this is done, what happens at the refinery is what the unit rate model tells us. The air emissions came in a second and very important step that the Air District helped them out with a lot. It turns out that the Air District has been publishing for many years an emissions inventory from Chevron. Chevron has to attest as to its accuracy. It has to use methods specified by the Air District to accurately estimate emissions and the District approves these annually. That emission information formed the core of how they scaled emissions from their baseline years of 2008 to 2010 up or down, depending on how the unit rate model told them a unit was being filled. So if a unit was operating at 80% of its capacity in 2008 and 2010, how should they scale up the reported pollution from that unit if the unit rate model tells us it will go to 90% or even 100%? Those were the emission estimate outputs of the unit rate model exercise and they had for three different sets of pollutants; the criteria air pollutants, toxic air pollutants and then greenhouse gases; emission estimates that varied for all 19 scenarios in the case of GHG and criteria pollutant and four of the maximum scenarios that had the refinery and its shipping activities run at its fullest.

She presented an example of many, many figures in the EIR showing the correlation between sulfur content and gravity. They conclude based on this not too intuitive chart that there is a slight correlation. It is more likely than not that there will be an increase in heaviness of crude with an increase in sulfur. But they have this kind of data as one of many examples throughout the project EIR.

Regarding the bottom line, they looked at the three sets of pollutants; criteria air pollutants, toxic air contaminants and greenhouse gas. For criteria air pollutants, because of the technology Chevron would be installing is replacing technology that is older and dirtier for three of the key toxic air contaminants, the new technology is inherently cleaner. So even at 93% of operations as opposed to the baseline at 89%, the new technology results in emissions that are lower in NOX, SOX and PM10. This is because the low NOX burner is cleaner. There are other technologies, consequences and pollutants for which there would be an increase. An example of a pollutant for which there would be an increase is reactive organic gases which are volatile. For these reactive organic gas increases, they were able to find physical changes to the refinery that would reduce emissions in enough quantity to offset emissions that would occur with the project. They found enough physical changes and offsets to net out to zero at both the 93% scenario and going up to 100%. The easiest examples of these are the storage tanks which have floating roofs on top to reduce evaporation into the air of reactive organic gases. It turns out that if you put a roof on top of a tank, it is better than the floating tank. It keeps wind from scooping out more of the reactive organic gases, so putting a roof on top of a tank reduces reactive organic gas emissions from the refinery. The refinery has 28 tanks and they are requiring they put a roof on one and they have the capacity to make them do enough to always net out to zero.

There are also examples of being unable to find physical ways at the refinery to net out to zero or to baseline level what would be emitted from the refinery. A good example of that is carbon monoxide; CO. CO will increase with the project and they do not have a way to reduce that down physically to the level that existed in 2010. For that, there is a tool that has been recognized by the courts and by federal and state law as being appropriate for mitigation which is an emission reduction credit. It is a bank account. Chevron owns credits that it is entitled to use, to spend, to increase emissions of CO in this example. What the City would do is make them spend that credit to offset this project. Some people think of that as more of a paper

exercise than a physical reaction to increased emissions. It actually works as a matter of law and as a matter of CEQA, but it is an increase in physical emissions. So they have another layer of mitigation built into the EIR where there is--and this frankly goes past where the City could force them to go with CEQA but Chevron agreed to this and we are now requiring it—where there is a physical increase over the baseline from this project of any air contaminant that physical increase will require Chevron to pay into a Clean Air Act Improvement Fund. So in addition to using the legal tools like credits which mitigate, it will have to pay into an air quality improvement fund which then must be used to further reduce impacts. So at the end of the day, this project will reduce net impacts from air emissions relative to the existing environment in 2008 and 2010 and also relevant to what Chevron could do legally under the No Project scenarios which is increase its utilization without this mitigation.

She presented an example of a chart inside the EIR which are the 19 cases analyzed; first from the URM, how full is each unit and then from the air emissions' perspective, given how full each unit is, how much pollution is coming out of these. The yellow highlighted line is actually the line the City feels is most likely to occur.

She presented the summary for criteria air pollutant emissions and under this one project case, there are 19 of what they see as the most likely conditions. This document is how many tons of air pollution would be either reduced, the negative numbers, NOX, PM and SOX, or increased CO or VOC's. The two on the edges; CO and VOC's require mitigation. The ones in the middle do not.

Ms. Hernandez said the next suite of air pollutants are toxic air contaminants. Toxic air contaminants are a family of air pollutants that are regulated because they are direct health risks and are very localized health risks. If you breathe this, ones' health could be affected. Whether it is really affected depends on how much one breathes, how long one breathes it, and how dangerous the constituent is or how toxic it is. There is a whole menu of steps to analyze whether a toxic air contaminant is causing a risk. The project EIR allows for no net increase in risk. This is also a topic that required them to look at existing risk levels from ambient pollution loads in Richmond which are well known to be not nearly as healthy as other parts of the Bay. They looked at topics like this where it impacts the environmental justice in going through this.

Ms. Hernandez presented a map showing sensitive land uses on page 4.3-104 of the Draft EIR. In going to the EIR, they have broken up neighborhoods around the refinery into 50 meter squares and 200 meter squares to estimate toxic air contaminant risk throughout the neighborhood.

An audience member indicated the screen was not working and they did not see the figures. Ms. Hernandez readjusted it and presented a picture showing the neighborhoods around the refinery; Iron Triangle, Atchison Park, school locations, and they looked in great detail at risk numbers that would occur if the project was approved and what they needed to do to mitigate those risks. She said a huge story that came out of this EIR and which was not part of the 2008 EIR. The 2008 EIR only looked at refinery's stationary fixed sources of emissions which is on page 4.3-105. It did not look at shipping, rail, or piping or trucking impacts. So those transportation impacts are looked at comprehensively in this EIR and it turns out that shipping is an incredibly important driver of toxic air contaminant risk for the City of Richmond. The next slide takes that information to the next level. Shaded areas are created by the BAAQMD's program identifying relative levels of toxic air contaminant risks throughout the Bay. This is the Richmond area, but the lighter colored areas have lower risks. The darker colored areas have higher risks and the orange block in the shipping channel is the highest risk of all. The City of

Richmond has relatively higher toxic air contaminant risks than its neighbors to the north. It also shows locations where refineries have higher risk profiles based on analysis, as indicated by stars.

What they did with the toxic air contaminant space is arrive at mitigation measures to reduce these toxic air contaminants to make sure they have no net increase in health risk to this community and no net increase in cancer or non-cancer risks. They have a variety of mitigation measures. The key driver in toxic air contaminant risk associated with this project come from increased use of the refinery which means more shipping. Shipping which is under a complicated set of international and national and even state laws turns out to be a big deal. Chevron is replacing engines in two ships that service the California coast. Crude oil comes from overseas to El Segundo down by Los Angeles and it is off-loaded into smaller ships that come up and down the California coast weekly. Chevron is putting cleaner engines in those ships which will benefit all California coastal areas and the rest of the Bay. Chevron is also retrofitting some tug boats which have higher emission levels with cleaner engines. These are examples of mitigation measures that were not included in the earlier document and also an example of how this EIR is much more comprehensive in terms of the issues it analyzes and assurances it provides that this project will not result in any increase in air pollution or risk from air pollution into this community.

Lastly, Ms. Hernandez said she would discuss greenhouse gas emissions (GHGs) which are a significant global problem. They are a significant priority for reduction by California and other states. GHG emissions do not have the same localized health effects but they have a climate effect on the globe. They full believe they have addressed the localized pollutant reductions to make sure there is no increase and actually a decrease, but global air pollution is going to increase as a result of this project. Refineries are already a large emitter of GHGs and taking in higher concentrations of sulfur will require more processing to remove sulfur and more hydrogen. The more processing of hydrogen and sulfur both result in more GHG emissions. With Council's and staff direction they used a hierarchy to require GHG emission reductions inside the refinery where they had opportunities to require GHG emissions that were meaningful and then to require GHG reductions in the community. They have an entire suite of GHG reduction measures that will be funded by Chevron through a $30 million, of $3 million a year for 10 years, to help fund GHG reduction measures in the community. This combination of actual physical reductions of GHG emissions are not enough to offset the GHG levels that would be emitted from this project. The State of California has legislatively decided that the way to control GHG emissions and reduce them statewide is a process called cap and trade program, adopted under AB 32. There is some controversy about this program, which is intended to shrink the amount of GHG out there by creating market incentives to reduce GHGs. If reductions are made, they get a credit they can sell to someone who cannot reduce their GHGs. There is controversy about that program but this is the state's regulatory response and third of these three tiers of mitigation measures required.

Just like the important role the Air District will play in annually monitoring and ensuring they have no net increase for real, there can be no increase in these pollutants, and they will have the City and Air District both monitoring and for GHG, there will be the California Air Resources Board that already requires third party validation of GHG emission levels. For the other pollutant categories, to the extent Chevron increases GHGs over its 2008 to 2010 baseline even with the refinery emission reductions and community emission reductions and the use of cap and trade credits, which is enough legally to mitigate this impact, there is an extra layer. Any increase over baseline requires payment by Chevron into a Clean Air Act Improvement Fund that will further reduce localized air pollutants. This is another example where they clearly have gone beyond

what CEQA requires based on the City's direction and Chevron's agreement that this is an extraordinary circumstance requiring extraordinary measures and they think the outcome is better.

Ms. Hernandez then referred to page 4.8-36, and said like criteria air pollutants, they ran all 19 unit rate model scenarios through an air emission model to know what kind of GHGs are associated with different kinds of crude blends, different utilization levels, and no matter what, there is an emissions increase coming. It can be legally mitigated, physically mitigated within the refinery to some extent and within the community, and she presented community reductions that are in the EIR. Everything suggested was done through an extensive outreach program and on a list. It has been quantified in terms of GHG emission reduction opportunities, local energy program, urban greening programs, transportation programs Chevron has proposed a 2 MGW project to be built inside the refinery to help offset needs for electricity. On page 4.8-61 a chart summarizes some of these community based programs and ranks them based on ranking criteria for how the $30 million would be spent over time to help create multiple benefits. For example, it is expensive to install solar panels on roofs, and these rank high which should create local jobs and should assist homeowners with their energy bills over time. When rolled up, the last slide on Page 4.8-66 summarizes the emission reductions in GHG that come from inside the refinery, activities like increased water conservation, LED lighting retrofits, participating in the Marin Clean Energy program and some equipment upgrades. Collectively, they have numbers for them. They think the community GHG reduction program will reduce GHGs by another 5,000 plus tons per year subject to what is chosen. Ultimately, AB 32 cap and trade allowance program is what will be needed to mitigate the remainder of the GHG emissions from the project.

Dr. Doug Daugherty, Environ, stated that to help orient people, the public safety chapter is 4.13 and he will try and reference things seen on the display. In providing context, he said when addressing public safety, usually they rely on a complex and variety of different safety regulations available at the local, state and federal level to say that would mitigate any impact that would be from a project. He thinks the EIR goes well beyond this and much of this comes in light of the August 2012 fire. It was a priority of the City and it also became apparent that simple reliance on compliance with existing regulations would not be enough and they are looking for opportunities to go beyond that existing framework. CEQA does ask a variety of questions and there are a variety of public safety questions. The overview is more focused on those relating to accidents that could happen at the refinery.

Dr. Daugherty referred to page 62 of the Public Safety Chapter, Section 4.13, and said there are three bins or bucket types of mitigations that improve the safety under the project. The first bucket is inherent parts of the project that make the operation safer. There are then mitigations related to what they are calling a reliability program which he will expand upon, but this was done with the City-hired corrosion expert Ms. Hernandez mentioned. The last one is additional mitigation on top of that which was added as part of the public safety evaluation. There are 8 project components which are physical or operational changes being made as part of the project that moves to make the operation safer, either using safer technology or going through a process where there will either be less chemical needed or stored on site at any one time or in some cases, completely eliminating a chemical such as replacement of the hydrogen plant eliminates one chemical currently used called mono ethylene. In the slides there are color coatings and many people have heard through some of the investigations of the fire that the Chemical Safety Board has looked at a different type of regulatory regime called the Safety Case. There are many elements related to mitigations or aspects in the EIR for this project that

can be related to that Safety Case. They try to highlight that in green when going through the slides. Inherently safer systems is one element for that safety case.

Dr. Daugherty showed the next figure which was in the appendix. When looking at accident risk, the risk for many accidents is the likelihood of that accident happening and the other is the consequence. To address the likelihood aspect, the City retained David Hendricks of the Hendricks Group based in Texas who has decades in experience with corrosion aspects at refineries. He spent a lot of time in the Bay Area and in Texas going through Chevron documents and interviewing Chevron employees to get a sense of how can this project change the existing operations at the facility and would that change cause an issue related to the reliability of that equipment or increase the likelihood of an accident happening. Mr. Hendricks looked at all of the feed stock and operational changes that were occurring because of the project and he said based on these changes, what kind of damage could occur at the refinery. The term damage mechanisms is a fancy way of saying there could be conditions that cause some sort of damage or degradation of the metals or vessels used at the refinery. Mr. Hendricks began with what is changing and had a list of 66 damaged mechanisms as used in an industry standard called API571 which formed a fundamental basis for his starting analysis.

Dr. Daugherty then presented a graphic found on page 98 of the chapter, Figure 4.13-3 which outlines the units at the refinery. One question is that now they know what type of operational and physical changes are occurring because of the project, what changes are there as they go through the refinery. There is different color coating representing the different types of changes that could occur because of the project. A key one mentioned in the air quality discussion is the increase in sulfur and crude content. The green lines are increased sulfur and the liquid streams going in. They stay in liquid stream for a while and then the other units remove them into a gas phase and they become a different type of sulfur species which then goes into a different orange color. Then, eventually they are removed from the process or go to a level where it already exists at the refinery. So it is tracing those changes to make sure units and pipes could be identified as having changing conditions because of the project.

When getting down to the base of his analysis, there is a handful of damage mechanisms that were relevant because of the project changes in about 7 different units. The primary ones were the crude unit, the hydro-treating units and the SDA. There were four other associated units and processes that were also identified as potentially changing conditions because of the project. Now they have their analysis down to which are the important damage mechanisms looked at and where. Based on that, Mr. Hendrix made over 44 recommendations ranging from general recommendations that would apply across the refinery and made very unit specific ones. All of his recommendations were adopted and incorporated into the plan, which is also in an appendix in the public safety chapter; a Chevron proposed reliability program. Many elements are related to the Safety Case, making it safer, changing materials, changing the way it is operating, increasing inspections, increasing the monitoring to make sure they are looking for whether or not there is corrosion happening, that they are doing it in more places and more frequency and in keeping track of it. He thinks in the crude unit, Mr. Hendrix identified 17 different circuits that will require upgrading of the metal from carbon steel to 9 chrome. In 4 other circuit's components of those circuits need to be upgraded as well. Chevron has incorporated those changes as part of their program.

On top of those changes and right now it looks at the analysis and is making predictions of what would happen. They did not feel this was sufficient so they also built in future checks as they increase sulfur within the feed to the refinery. The check points are important so they can go back and do analysis and say whether the conditions are the same or have they changed and

should they do some more. All of this must be redone and reported back to the City and the City and the County have to agree those recommendations are appropriate for the data collected as the project is operating.

Some other aspects that Mr. Hendricks did not recommend but that Chevron added to its reliability program are related to communications and reporting. They are committed to holding annual town hall meetings where they have to report back to the City and County on the reliability program, what they have implemented, what they have seen, and what data has been collected. On top of this, there were additional mitigations that were added. Many are related to the Safety Cases. Some key ones are mitigation that requires Chevron to fund a third party selected by the County and in conjunction with the City, to help them look at these reports being generated under the program to determine if what is being done, doing independent verification, audits as necessary and participating in some of the reviews related to process safety. In addition, they are increasing the amount of training and drilling going on with the County and City fire department as well as upgrading the community warning system to account for some of the deficiencies seen in the August 2012 fire.

To touch back on the Safety Case and the industrial safety ordinance, Dr. Daugherty presented a slide that summarizes many aspects of the mitigation they just reviewed that relates back to the Safety Case, focusing on a system that continues improvement, getting their workforce more involved and the process safety aspects at the refinery, and also getting more oversight, assessment, verification and intervention especially with that third party expert to help the City and County as part of that process. This goes towards more independent, competent and well-funded aspect that the Safety Case talks about. Right now, there is amendment to the Richmond Industrial Safety ordinance but they incorporate those amendments as part of the mitigation required in the public safety chapter. To touch briefly on the other aspects of public safety, the other side is the consequence that could happen if an accident did occur. What kind of new hazardous materials are being stored at the refinery because of the project and what would happen if it were to be released, and are the impacts from those released are within the existing impacts from quantities already stored on site. Most EIR's stop there but for this one, there are 19 additional mitigations in the public safety chapter that are referenced for those kinds of consequences of any impact to help reduce risk even further. The facility will not be generating, transporting or using any new type of hazardous material or waste. In some cases they will be using some more and in other cases because of the project they will either be reducing it or they will reduce it completely because of the change in the project. To provide a sense of what is in the EIR, for the construction phase of the project there are 5 mitigation measures specified. For operations for the use and transport of hazardous materials, there is an additional 13 mitigation measures related to those types of operations.

Dr. Daugherty concluded with one aspect of public safety. If they do have an accident or fire, to help prevent it or address it can be found on page 127 of the public safety chapter, Figure 6. Google Earth saves aerials from far back and they pulled information in relation to the August 2012 fire. In the middle bottom there is a round area which shows the flare flaring during the incident at the crude unit. In May, it is an open grassy area and after the fire there is about 5 acres of burned area from the grass fire. There was so much radiant heat coming off the flare that it ignited the grass fire. Noting this evidence in the EIR, there is additional mitigations for Chevron to upgrade its fire protection plans to address open vegetation areas and to coordinate more on the emergency response, especially with the City and county if an incident like this would occur.

Lynnette Diaz, Urban Planning Partners, said she will talk about the other topics within the EIR that do require mitigations. Chapter 4 looked at a total of 17 topics. They have talked tonight in detail; air quality, public safety and GHGs, and there are 5 additional topics that require mitigation measure. Although there is not a lot of vegetation on the site, there is some and during construction there is the potential that some biological resources on the site could be impacted, primarily in the tank farm area and during construction of the tank domes. They have recommended mitigation to avoid any impacts to special status species, nesting birds, and monarch butterflies that could potentially occur during that. The mitigations are pretty standard and typical of construction period impacts.

Additional construction period impacts could occur to the topic areas related to cultural resources and to noise. There is not a lot of excavation anticipated to be associated with construction but there is some and there is always the possibility of identifying some resources so it is a standard process to go through if those resources are discovered during excavation.

Associated with noise, there is the potential that if there is nighttime construction the City's established noise standard levels could be exceeded and they have recommended monitoring and steps that they would have to take to ensure those levels were not exceeded.

Under the topic of hydrology and water quality, there are a couple of impacts related to the construction period as well and they relate to the quantity and quality of waste water that would go in the on-site treatment facility, and measures to ensure that the volume does not increase and additional pollutants do not go into that, and there are a number of measures recommended to ensure that. There are also some areas of contaminated soil on site during construction which need to be managed and they have managed mitigations for that. Then there is some potential of coastal flooding associated with sea rise and tsunami's and it is recommended that Chevron will be updating their flood contingency plan to ensure that adequate measures are in place so no significant impacts occur as a result of that.

Finally, regarding transportation and traffic the identified impacts there are related to construction and potentially the intersections of Castro Street and I-580 westbound ramps, the Richmond Parkway and Gertrude Avenue intersection, and the Castro Street and Hensley Street intersection. Mitigations are recommended to ensure that the level of service would remain acceptable at all those intersections.

Ms. Hernandez stated the EIR also looks at a broad range of alternatives. The purpose in CEQA of looking at alternatives is to find opportunities to further modify the project to avoid or eliminate significant adverse impacts. As this has emerged, they have managed to avoid significant adverse impacts for the project itself so the alternatives analysis is informative but it is not as tailored as one would otherwise expect if there were significant adverse impacts from the project and they really focused most of their attention on trying to avoid those residual impacts. There is a broad range of alternatives analyzed including different variance of the no project alternative. If this project is not approved, then what would likely be air and other emissions associated with the refinery as it exists both if it is assumed that it continues to operate at 89% which it does not have to legally, if it goes up to 93% which is a higher more realistic number given other refinery performance on the west coast, or if it goes all the way up to its permitted maximum of 100% and that is provided as information.

She stated they also had a variety of questions that arose, some relatively late in the 2008 process about, for example, repowering the refinery with renewable energy, what happens if they try to recreate fully the electricity needs from the refinery from renewable sources from PV

panels. The alternatives analysis looks at a 2 MGW project as well as an 8 MGW project and beyond that. They also look at capping different kinds of refinery operations like how much hydrogen they would be allowed to produce, how much sulfur they would be allowed to process and those are in the alternatives analysis and they very much welcome comments on that.

The final piece of the draft EIR is mitigation monitoring and reporting. They have long since passed the time when anyone wants to have a huge EIR done and then just sit on a shelf. These need to be living documents and there is a CEQA requirement that there be annual monitoring for enforcement and compliance with mitigation measures. The mitigation monitoring and reporting program does not need to be in the Draft EIR. It does need to be in the Final EIR. They put a draft of that program into the Draft EIR to solicit comments and in particular, they proposed a co-teaming role with the City and Air District working together on annual monitoring and reporting for air emissions and again, teaming the City with the County on public safety mitigations. The rest of the measures would be overseen in the ordinary course by the City, so they would like comments on that process as well. It is unusual to add another expert agency into the CEQA mitigation monitoring and reporting program.

She presented the last of the slides which is a quick summary of next steps. April 17th is the formal public comment hearing on the Draft EIR, May 2 is the close of the 45-day comment period, and after that a final EIR will be prepared. That final EIR has to be out for public review for at least 10 days before this Commission can consider or approve it. The Commission must consider and approve it if it wants to approve the conditional use permit for this project. The sequence that would be occurring after the final EIR is done is that the final EIR and project applications come to this body for decision-making and the decision can be appealed to the City Council. The City Council decision can be appealed again to the courts.

Chair Lane thanked the speakers for their presentations. She asked Commissioners for clarifying questions with the idea they will also have April 17th to provide specific comment on the draft EIR.

Commissioner Langlois thanked the consultant team for their presentation. She hopes staff can ensure their monitors work for the next meeting and said she had a couple of process questions. She is aware there have been requests to extend the comment period. She noted there is a lot of material to read and go through and she confirmed that under City Manager or City Council direction, staff can decide to extend the comment period.

Commissioner Langlois asked what the role of the Planning Commission is in submitting comments and questions. She asked if any questions go into the record as considered comments on the EIR or if this is just for members of the public. Ms. Hernandez said today's meeting is recorded as having occurred as a workshop, but the actual content of the meeting is not considered a formal comment on the EIR. The meeting is being streamed live and will be captured and presented and available for review by those who go onto the project website. They also had some earlier workshops that informed people of how refineries work and what GHGs are all about, so it is part of information available to the public but it does not count as a comment requiring response in the Final EIR.

Commissioner Langlois said she understands all comments submitted by the public will be addressed in the final EIR and she asked if this will be true of any comments or questions made by Planning Commissioners on April 17th. Ms. Hernandez said unless the City has a separate proceeding, the answer is the consultant team would interact with the Commission and part of the transcript for that formal hearing will be reprinted and responded to.

Commissioner Langlois said because it is such a complex document, she may have more questions after tonight. She asked how she can ask questions after tonight if she has more questions. Ms. Hernandez said in all cases, initially to Ms. Velasco.

Commissioner Langlois referred to toxic air contaminants. Ms. Hernandez introduced Dr. Shari Libicki of Environ who is their lead author. Commissioner Langlois referred to the health impacts and the map of Figure 4.3-10. She does not understand the numbers. As she was told last night at the workshop, the toxic air contaminants can have health impacts ranging from increased cancer risk to increased risk for acute non-cancer related disease and risk for chronic diseases. On the map, it shows cancer risk and numbers from zero to 600 with various gradations and at the project site where it shows there would be increased risks if things were not mitigated, there are various numbers listed. She cannot tell what any of those numbers mean.

Dr. Shirley Libicki, Environ, stated this chart was intended to convey two things. The first was the background cancer risk predicted by the BAAQMD for the year 2015. That background cancer risk is designated by the big blocks. The big blocks are related to the numbers of 100 to 200 in a million, 200 to 300 in a million, etc. This is background cancer risk independent of the project itself. The background cancer risk is in units of so many in one million and it is intended to talk about the lifetime cancer risk, in this case from breathing 70 years of air starting in 2015. The second thing this diagram was intended to convey was to overlay that background risk with the incremental project health impacts including cancer risk. The green star is intended to overlay cancer risk from the project on the background cancer risk and this is unmitigated. So that is unmitigated the total incremental project risk of 4 in one million. There are three other dots intended to convey the incremental health impact associated with the project for acute non-cancer risk, for things like respiratory distress or watery eyes. For chronic non-cancer risk, these are things that affect one's health but are not cancer, such as asthma, COPD, liver damage. And the third star is intended to convey the PM2.5 concentration which is actually a criteria pollutant, but the BAAQMD has asked them to evaluate it for its toxic effects related to concentration. So it is a funny hybrid chemical that they would normally not put on this kind of risk map except that the BAAQMD asks that as part of its CEQA guidelines to put it on and treat it as if it were a toxic. So when people get confused about what is a criteria pollutant and what is a toxic, they have plenty of reason to be confused because this one particular entity travels in both spheres.

Commissioner Langlois said it appears from this map and what Ms. Hernandez stated earlier that much of the health risk comes from shipping. As she understands it, emissions from shipping are hazardous to people's health but they are not regulated like stationary industrial sources. Although they occur, they are regulated by a federal level which is not as stringent. Dr. Libicki said this is correct and in effect, a regulatory evolution. They first began regulating stationary sources and mobile sources on land, but two types of mobile sources largely escaped regulation, which are trains and ships, and now they are catching up with them.

Commissioner Langlois referred to page 4.3-87 where it talks about emission reduction, it mentions the oil tankers and it states that three ships will be replaced, but she did not see the tub boats mentioned. Dr. Libicki said the ship replacement is a PDF and part of the project and there are two new ships replacing three old ships. This is part of the project although it will be required as a mitigation measure. The tugs are a mitigation measure applied after the project in order to reduce the risks from the shipping and from the project as a whole to this no net increase level.

Commissioner Langlois referred to the toxic air contaminants themselves and said there is a long list on page 4.3-96 and beyond and projections from the increase at the baseline. Since diesel particulates from trucking and shipping are so hazardous, she asked where they appear on the list of chemicals. Dr. Libicki said this should be listed as DPM or diesel particulate matter.

Commissioner Langlois said in terms of the toxic air contaminants, she asked if hydrogen production itself results in Criteria Air Pollutants (CAPs) and GHGs and she asked if it also gives off the Toxic Air Contaminants (TACs). Dr. Libicki said any source of combustion give off TACs as well. Commissioner Langlois clarified that TACs are emitted in hydrogen production, sulfur removal process and the refining of oil itself. For the GHGs, she asked about local mitigations. One of the refinery based productions will be participation in Marin Clean Energy. She asked how many tons of GHG that participation would result in. She would also think Chevron would be part of MCE because everybody in Richmond switched over a year and those who did not chose to opt out. Therefore, she asked for that status of this situation. Ms. Hernandez said this is a perfect example of a comment they have heard and will answer in the final EIR, which is the question of quantifying GHG reductions from current participation in MCE.

Commissioner Langlois said to get the overall picture it looks like the project would result in about 700,000 and 900,000 cubic tons of GHG increase which would be mitigated. Only about 10% to 12% of that increase would be mitigate through the local projects and about 95% and 90% of the GHG would be mitigated through the cap and trade program. The cap and trade program is new and based on many assumptions, predictions and projections. She asked what would happen if problems arise and the cap and trade program does not work like they think it will and she asked for the backup plan.

Ms. Hernandez said they do not have a good backup plan, although they do have a legal obligation to stay with no net increase and there is also a cash payment that needs to be made by Chevron into an air quality improvement fund for every ton of GHG that is emitted over the 2008-2010 baseline years even if can and trade offsets are obtained. It requires that extra reduction program, but cap and trade has been challenged in court. It has been upheld in court as a tool for managing GHG reductions and it is consistent with a long line of cases that have upheld the use of these emission reduction credit tools as a way of complying with standards for air pollution.

Commissioner Langlois referred to air quality and the clean air improvement fund. As she understands, increases in toxic air contaminants and criteria air pollution, should any increases occur unexpectedly above the baseline beyond the no net increase, a payment would be made into the fund. This seems to be a contradiction to her because there is a commitment to no net increase. She asked how to get back to the no net increase so it evens out to no net increase over time. Ms. Hernandez said for criteria pollutants and GHG pollutants, the answer is any numeric increase over the actual tonnage of pollutants. For GHG and CO which is one of the criteria air pollutants, they will be using credits as opposed to physical reductions so they know funding will have to be paid for those physical increases over baseline even though they are using credits to offset them because it is a physical increase. The other circumstance that could happen such as in tank doming, it could be that Chevron miscalculates and falls one year behind in installing a tank dome. It could be they have a circumstance where there is a temporary exceedance over baseline even though they are required to do this mitigation. For those temporary increases, there is no free ride and also the payment that would be required for even that kind of temporary increase. She noted it takes a long time to create these tank domes, and this is an example of a “belt and suspenders” approach in case there is a one year miss. For toxics, the issue is risks. They are happy with the shipping related mitigation measures, but

similarly, if there is an exceedance of this indicator, especially DPM, they are not going to be happy and will have to run a risk assessment model to see whether that is an increase or not. If it is, there will be a base payment of $100,000. So there is a strong incentive not to go near that.

Commissioner Langlois asked if they would have to reduce even more the next year to average out. Ms. Hernandez said they do not have that as a requirement. They are just held to no net increase plus a cash payment that will reduce further. They will be quantifying reductions beyond the reductions from the air quality improvement fund, so this should create a decrease over time as well.

Commissioner Langlois referred to the hydrogen plant and said she understands the NOX burners are of such a quality that they will actually reduce NOX emissions because technology is superior and cleaner now. She asked about the technology of the hydrogen plant that will reduce particulate matter or avoid it from going up with increased production. Dr. Libicki said she would need to go back to the specific document and obtain this answer.

Commissioner Langlois referred to the safety question and said she appreciates the concern after the fire. In the project description, it mentions that a number of pipes will be replaced and it is clear that pipes posed a hazard to corrosion before the fire. She asked specifically which pipes and equipment are proposed to be replaced specifically and where in the diagram that fits. Dr. Daugherty referred to the appendix of the second volume, Appendix 4.13-REL. There is a table which lists each circuit which will be replaced. It describes what the circuit is. It describes the existing metal, proposed metal and an estimated replacement by date.

Commissioner Langlois said when they spoke with the U.S. Chemical Safety Board and they have made a number of presentations here, they recommended the inherently safer technology be implemented and be required as part of the industrial safety ordinance. It seemed what they were saying was safer technology is more feasible if they do it before rebuilding the refinery. She asked if the EIR will require that inherently safer components be implemented before construction of other parts of the project. Ms. Hernandez said she thinks these systems by and large are parts of the components that are being built as part of the project, so they would have to be installed and operational before the project is turned on.

Commissioner Langlois said they know the facility uses both natural gas and it produces its own fuel gas for its energy uses. She wonders if the EIR quantifies the total baseline and post project use of fuel gas and how that fits into the possible impacts. Dr. Libicki said the EIR quantifies the emissions associated with each of the fuel gas burning operations but does not quantify the fuel gas combustion per se.

Commissioner Langlois referred to the crude by rail issue and said she noticed in some of the scenarios that were looked at in the Unit Rate Model (URM), and the lighter crude within the production scenario projected possibly a blend that would have Bakken crude and something else. She asked if there is information about whether it will be possible for Chevron to refine Bakken crude as part of a blend, because she knows Bakken alone is too light for the refinery. If it can be blended, she asked if they analyzed the environmental and safety impacts of receiving it by rail. Ms. Hernandez said they have a Chevron attestation which they will include as a project approval condition that crude does not get received by rail in this facility, and that will continue to be the case into the future. They looked at Bakken as they did with a range of other crudes because they had different constituents and they were trying to figure out what happens when different kinds of crudes get processed even if the crudes do not actually land at the

refinery where they could be refined. They looked far and wide for different kinds of crudes in response to the court's direction.

Dr. Libicki referred to Commissioner Langlois' question on PM10 and she said she believes PM reductions come not so much from the hydrogen plant but from the sulfur recovery unit where they are adding electrostatic precipitators, so some components of the sulfur units actually cause less PM10 to go into the air.

Commissioner Langlois referred to the alternatives and the Table on page 6-22 and 23, there is a summary of project alternatives. The table states that "this table assumes that the project's no net increase commitment and reliability program are not implemented in each alternative." She asked if they have data for a similar table that would assume that the no net increase commitment and the reliability programs are included in the alternatives. Ms. Hernandez said they discussed the scenario of including those commitments in each of the alternatives in the narrative description of the alternatives, but they did not do a summary table that captured that bottom line. They looked at the narrative summary table as frankly more of an overview of what they could reasonably require and not what the applicant may or may not agree to. They did in the text analyze and disclose what would happen if Chevron agreed to do those same features for each alternative.

Commissioner Langlois referred to the summary on the project on page 2-9 in the beginning, and said she was somewhat confused. Under paragraph 2.5.8; Environmentally Superior Alternative, it states that none of the alternatives described in Chapter 6 would implement the project's commitment to no net increase of GHG emissions, cap emissions and health risks related to TAC emissions. However, later in that paragraph, it states "all things being equal, when compared to the project, the reduced sulfur processing alternative would have reduced transportation impacts and slightly reduce reliability and public safety impacts, as explained in Chapter 6. Thus, if the reduced sulfur process were approved and if the no net increase commitment were implemented, then the reduced sulfur processing alternative would be environmentally superior to the modernization project. Ms. Hernandez said this is exactly the same point that caused some confusion in the table—they cannot ensure that no net increase is tied to the other alternatives, but they say both things. If it is not, then the project is environmentally superior. If those commitments they cannot mandate are in part or in full included in some of the alternatives and particularly the reduced sulfur alternative, would be environmentally superior. Either way is possible. What they can legally mandate is different.

Commissioner Langlois referred to Chapter 4 and said the CAP and TAC emissions are increasing and in several scenarios and in several categories. She asked if they provide projected emissions for these chemicals and the scenarios that would have sulfur at 2.25% instead of 2.5% and with hydrogen production limited to refinery requirements. Ms. Hernandez stated there is an alternative that assumes effectively a cap on hydrogen production that would not effectively allow for much export if the refinery runs at a reasonably foreseeable or fuller level. They do look at this alternative and the emissions associated with it. Commissioner Langlois asked if this is described in the text on the alternatives, and Ms. Hernandez confirmed.

Commissioner Butt referred to where there are additional increases in emissions and required payment into a BAAQMD fund and asked what typically does this fund and is there assurance it would be used for Richmond projects. Ms. Hernandez said this is an improvement fund that would be created only if this project was approved and it would only be used for projects in or near the vicinity of Richmond. It would be under the City's control to allocate funds as it saw fit,

subject to coordination with Chevron, community stakeholders and others. There is no Air District Air Quality Improvement Fund that is set up as part of this project.

Commissioner Butt said there was some discussion about the hazards of diesel fuel and shipping is a major source of this. He confirmed that these would be new ships retrofitted to engines cleaner than what would be required under the law. Commissioner Butt asked how many ships will serve the refinery, and Dr. Libicki said it is not how many ships serve the refinery but what percentage of the calls the two ships make and they can acquire these numbers. Dr. Daugherty added that there is specific information on calls as an appendix in the air quality chapter; SHP is the acronym for the chapter. Those two ships are Chevron-owned and they do make frequent calls to the long wharf.

Commissioner Butt said when ships generally are at the long wharf, do they typically idle their engines for power or he asked if they get shore power. Dr. Daugherty said at the long wharf there is not a cold power insulation so when they are at berth they are running their auxiliary engines for power and also if they are pumping material onto the land site.

Commissioner Butt asked if it is estimated that as a part of this project that the shipping traffic will likely increase or not. Dr. Daugherty said as part of the projections for the project, as utilization increases, the amount of shipping must increase to bring in the crude oil and that was accounted for in both the 93% scenario and when we looked at the 100% utilization scenario so it was scaled up.

Commissioner Butt said on a related note, he asked about diesel truck traffic and asked if this would also increase. Dr. Libicki said the truck traffic is also projected to incrementally increase both at the 93% scenario and for the 100% scenario and that was accounted for.

Chair Lane referred to page R217 in the summary and said there was mention that the different blends will be mitigated for NOX mitigation with exception of the lightest crude blend. She assumes there is an explanation of why the lightest crude blend has the greatest emissions. Dr. Libicki said this refinery accepts both crude oil and gas oil. When you have the lighter blends, there is more room at the bottom for the gas oil. With the lighter blends there is a greater amount of shipping and a greater amount of transportation and this is what affects that change.

Chair Lane said one of the mitigations was related to putting a dome over the tanks and the recommendation is that one tank be domed. She asked if there is more than one tank, there could be a recommendation to dome more tanks. Dr. Libicki said as part of the design feature one dome tank is going to be added. There is the option for mitigation measures for doming another 26 or so at the refinery.

Chair Lane said her last question relates to mitigations in terms of pollutants related to the shipping piece. She asked if there is something included that shows the percentage of emissions reductions related to the mitigation on the engines versus the stationary source. Dr. Libicki said when they talk about the reason for the mitigation on the ship engines it is really for health risk. The percentage of emission reductions does not relate directly to health risk because the toxicity of the emissions must be put into the equation. You could almost look at the risk numbers and see what the percentage reduction is from the shipping because the shipping represents 90% of the health risk. Chair Lane confirmed that stationary sources are not necessarily the cause of the majority of the health risks.

Commissioner Willis said in the new technology that will be used to help with mitigation, he asked if this comes from any of the recommendations made from the Chemical Safety Board. Dr. Daugherty said he did not know if they made specific recommendations. He thinks the 8 components of inherently safer technology that was listed on the slide follow the themes of being inherently safer either using the technology that is safer or reducing the amount of chemical or the chemical completely from the process.

Commissioner Willis noted that this project is going to reduce greenhouse gases but he would like to see them reduced specifically in Richmond. It was also noted Chevron was going to fund about $30 million for projects that will mitigate greenhouse gases, but even this would still not be enough to reduce it locally. He asked what it would take to mitigate GHG's locally. Ms. Hernandez said they have looked throughout the City and in the region and there is not the opportunity to get anywhere close to a full reduction package. Most GHGs come from cars. Dr. Libicki said the magnitude of GHGs emitted by a major refinery simply cannot be mitigated in a City like Richmond. Therefore, with each piece of GHG mitigated, each time more is mitigated it gets more and more expensive. In the City of Richmond, a great deal of GHG come from cars going through Richmond on the freeway which are hard to attack and mitigate.

Commissioner Willis said for the sake of argument, he asked if there is any way to counter those GHGs being emitted from the project and no necessarily from cars or other elements. Dr. Libicki said there are some opportunities for energy savings and they looked at those, as well as the Air Resources Board, but there is definitely limitation on this at some point. Ms. Hernandez said the Air Resources Board has been trying to strongly encourage stationary sources like refineries to voluntarily reduce GHGs and there is a 5 or 6 year list of projects that Chevron has already implemented because they were implemented for another purpose for which they were not credited. The ones required for this round like LED retrofit lighting and some of the water conservation projects are new mandates they are putting in place. She thinks it might be important to put those additional projects not credited into the EIR.

Commissioner Martinez recognized the amount of work that went into this and recognized those in the audience who hope it pass and that they get the jobs they have been promised. He asked if there are only 1,000 jobs for the start-up plan or he asked if there were more. Ms. Hernandez said there are 1,000 construction jobs in the forecast. The project was partially constructed and the EIR describes this partial status and the construction remaining.

Commissioner Martinez said after the start-up, he asked if it is only 500 jobs. Ms. Hernandez said it is 29 new permanent jobs at the refinery. Commissioner Martinez said this is not quite what he remembers from the media blitz given by Chevron but he thinks 29 is better than zero. He understands that the Port of Long Beach has installed shoreline power to every wharf and he asked if this is in place here. Dr. Daugherty said there is a state regulation that requires shore power at container ports like Long Beach, Los Angeles and Oakland. There was going to be a second phase of that regulation requiring other types of ships including oil tankers, but this did not go through. He knows Long Beach has been installing shore power for container ships but he is not sure there is power for oil tanker ships.

Commissioner Martinez asked if it would be less expensive to do this than to provide two new ships. Dr. Daugherty said he was not sure, and Commissioner Martinez asked to include this in future analysis. He also said the EIR talks about having the workers be included in the process for evaluating the upkeep of the plant. He asked if there is any whistleblower protection for anyone who might decide to say something that management might not want revealed. Ms. Hernandez said they do not have any provision like that as an EIR mitigation measure, but they

can review this. The EIR is really structured around mitigating adverse impacts but they did not consider a whistleblower type of mitigation in the EIR at the moment. Dr. Daugherty added that there are some provisions for whistleblowers in some of the existing process safety regulations.

Commissioner Martinez said for any overages of pollution, it states that Chevron will pay per ton. He asked for potential figures and asked this is like a sliding scale where fines are more per ton. Ms. Hernandez replied they have a metrics for greenhouse gas because they have an active trading market for cap and trade credit so they were able to monetize that. They are working on what the metrics or pricing mechanism should be for air pollutants and there is $100,000 starting point for any exceedance of risk, with the idea that even a small amount of risk is not okay. Commissioner Martinez said he thinks $100,000 is very low so it is a matter of perspective. He values health more than he values $100,000. He would suggest starting at least at the $1 million level.

Commissioner Martinez referred to the comparison of alternative impacts and said he understands there were 19 different scenarios that were proposed. He asked if all 19 included mitigations. Ms. Hernandez said the 19 scenarios were all associated with how the project would operate. Separately from the 19 scenarios they looked at alternative projects and looked at the most likely crude blend, slightly higher sulfur, slightly higher gravity, and they used that as a common denominator to compare different alternatives. They have 19 scenarios considered for the project and then for alternatives, they carried forward the most likely project scenario in a conservative sense; 93% utilization, 100% utilization of the hydrogen plant which has higher impacts and therefore higher mitigation and then those are adjusted in different alternatives, but using the project crude blend.

Commissioner Martinez asked if mitigations were included in the No Project. Ms. Hernandez said this is a similar question which was asked earlier. They did not have any legal capacity to require Chevron if the project was not approved to accept any of these mitigation measures. They are all uniquely available if and only if the project is approved. Commissioner Martinez said considering the baseline they are using is a baseline that was created when Chevron was non-compliant in running the plant, 7 woeful negligent charges which they pleaded no contest to, he surmised that the baseline is false and it should probably be based on what they would be producing had they run the plant properly. Ms. Hernandez said CEQA is very much focused on what is actually the case as opposed to what the courts call a hypothetical baseline. For example, when asking for a permit renewal, if the permit does not get renewed, the project does not exist. There have been a number of cases that say then shouldn't the baseline really be the project not existing. The courts have been clear and consistent over the years in saying they should take the conditions in the environment as you find them and this is what they will measure against. She is not involved in any of the enforcement proceedings and does not know the details but based on that track record, they went way past the normal EIR practice by having an independent expert do an exhaustive evaluation and they also talked with expert agencies on top of that and built a whole new regime around public safety based on the August fire. This was their response to the "baseline" question, as it is not a baseline; it is what it is, but they did not feel the existing laws and regulations protected against that incident. So they beef up what Chevron has to do in the EIR.

Commissioner Martinez said he appreciates this and he also appreciates the many things Chevron has volunteered to do, but he just does not think they volunteer enough. Everything they volunteer means more jobs for Richmond and also more safety and better health for the community. While he appreciates what they propose to do, he knows they could do far more and he is asking Chevron to step up to the plate, be a responsible citizen and offer more.

Dr. Daugherty said in regards to shore power, the engine upgrades are a project design feature that Chevron is proposing as part of the project. Shore power is on the mitigation menu that will be evaluated for air quality impacts.

Commissioner Reyes said sources were cited when preparing the document and he asked and confirmed they referred to the City of Richmond General Plan. He appreciates also the response regarding the Chemical Board and piping at the refinery. He confirmed also that they reviewed Communities for a Better Environment documents which also contains very valuable information around safety, community and worker safety, particularly when bringing things to this City that will truly benefit the residents of the City. What he did not see is any real time monitoring of contaminants in the air and he asked what happened. Dr. Libicki said there is in the mitigation measure specifically for the toxic contaminants. There are several measures associated with real time monitoring of air.

Commissioner Reyes said it was very important for people during the August fire who were stuck in their homes watching TV and no one knew a thing and then they heard about the fire in Rodeo. He wants to be sure this is also addressed. Regarding the domes, he and Commissioner Choi were on the Commission when the refinery came and requested permits for less domes and the Commission was unanimous in its decision that they want the best technology. For him, this is for real safety and he urged additional domes. Lastly, regarding cap and trade, he asked if this was just throwing money at the problem. Ms. Hernandez said she is not an expert on the program, although she understands it as a lawyer. There are many people who spent a lot of time on it. It is controversial and subject to a lawsuit. The Air Resources Board prevailed in that lawsuit. It is the law of the land and has been deemed effective to achieve California's GHG reduction target. There is a new scoping plan that the ARB just proposed to get to the next increment of GHG reductions.

Commissioner Reyes recommended another real community benefits package and one that will double or triple the training of young people to get jobs. He would like some real preparation for workers who are in a digital world and not even achieving graduation. He said he would like safety, jobs for local young people and this will not happen until Chevron steps up with this.

Chair Lane opened the public comment period and thanked people for their patience.

ACTION: It was M/S/C (Langlois/Willis) to accept late speaker cards, which carried by the following vote: 6-1 (Ayes: Butt, Choi, Langlois, Martinez and Reyes; Noes: Lane; Absent: None).

Public Comments:

Antwon Cloird, Richmond, said labor is getting ready and staying ready to get youth in an apprenticeship program trained to work at the refinery. He said Chevron has fixed everything in Richmond and the City Council always has problems when getting to this point because everybody wants them to do more than what everybody else is doing, and Chevron went above and beyond what they needed to do. He asked the Commission to be grateful, to build relationships and then ask for more.

Raymond Lundry, Richmond, said he has a BA in urban planning and is familiar with some of the terms and conditions in the EIR. He voiced concern because he received a newspaper by

mail called The Voice and in it there are several members on this Commission that is in The Voice. The back page advocates for Chevron to be shut down. His concern is whether or not some Commissioners have a conflict of interest as a result to even vote on this EIR or project when they have put out publicly that they want Chevron shut down, and he asked for a legal opinion from the City Attorney.

Reverend Jeff Belvin, 26 year member of Local 324, Concord, said the Chevron modernization project will provide work for members and all of the building trades, as well as for those who live in the City. The project will benefit the City, provide income for residents, provide money for local businesses and Local 324 can provide experienced workers who have been trained to do the work. They want the opportunity to work and when the refinery breaks, they fix it. He asked the City to allow the project to move forward to make the refinery and community safe and bring Richmond back to the City of Pride.

Vincent Jones, Richmond, said Chevron has been helpful to the community and began working at Chevron in 1992 on the Clean Fuels project. This project was successful and Chevron has commitment with the City of Richmond through education projects, training programs, tutoring and college sponsorship and he asked that the project be approved.

Jesse Arnold, Richmond, said jobs are a side effect and added benefit that provides jobs and money, and he is concerned for his children. Common sense tells him that better regulation is needed, and the project will bring better air for his children. There are both sides to the story but Chevron is a major contributor to Richmond. He asked what would happen to Richmond if Chevron shuts down and leaves and said he will return to the next meeting.

Robert Reed, Richmond, said he is an instrument planner for Chevron Refinery in Richmond and is supportive of the modernization project, the Draft EIR, and by the number of refinery employees, his co-workers also support the project. Many Chevron employees engage with the community and how it benefits the refinery and community. The EIR clearly demonstrates that the project will protect the environment, enhance safety, reduce energy use and create 1,000 jobs which will have a major impact on economic growth. He spoke about the mentorship, funding and programs Chevron provides to young people.

Jeff Hartwig said he is Chevron's permitting manager for the modernization project. The project is a billion dollar investment in the refinery. It is a reliability project that replaces some of the oldest processing equipment with modern technology that is safer and meets the nation's toughest air quality standards. It will increase efficiency, enhance safety, protect the environment and create more than 1,000 construction jobs. He spoke about replacement of the 1960's era hydrogen plant with a new plant which represents the single largest thing they can do at the refinery to improve energy efficiency. The project also provides the flexibility to process crude oil blends and gas oils containing higher levels of sulfur while meeting environmental and safety standards. He spoke about enhanced safety inspections and regulatory oversight, said this project is not about processing crude by rail or Canadian tar sands, and the project does nothing to enable it. He supported the EIR and said he believes the project will benefit the Richmond community.

Commissioner Reyes referred to those ready to work on the project and asked to explain the pre-apprenticeship program, what unions they are, and the number of people. Mr. Hartwig said their commitment to direct as many of the jobs that are created not only with the project but also jobs associated with the $3 million a year for a 10 year commitment on improving energy efficiency and GHG reductions to go to Richmond residents. A week ago they entered into an

agreement with the City of Richmond and the building trades to maximize local hiring. They also enhanced training available for young people and met with the City and officials from the state of California that reviewed the grant application the City submitted and the City was successful in obtaining grant funds. When looking at the criteria.

Commissioner Reyes asked Mr. Hartwig if he has done a similar project anywhere else, and Mr. Hartwig said he has not but Chevron has, stating there is a similar plant in Los Angeles, in Salt Lake City, and it is the state of the art for hydrogen production.

Commissioner Willis referred to the jobs aspect and asked for a rough percentage of how many local people will have access to jobs that could be created from this project. Mr. Hartwig said they are hiring a coordinator to help with promoting and tracking their ability to direct jobs to Richmond residents and also directing purchases from Richmond businesses.

James Austin, Jr. stated Chevron has a Richmond Opportunity Program (ROP) that is not publicized. Regarding the EPA, there is a wet system and a dry system and while it has done good, it has also done harm. Prior to August 12th, Chevron was trying to do maintenance and many businesses, schools and kids suffered. He asked that the kids be given an opportunity for jobs. He spoke of school programs and asked to think outside the box. Richmond has many good people and asked not to destroy it further.

Pastor Marcus Mitchell, member and officer of Local 342 out of Concord and said his concerns are based on safety. He spoke at Bethlehem Church where City representatives were present and he said it was time for Richmond to come out of its drought, and he encouraged the Commission to support Chevron, as up to 30% of Richmond's economy comes from Chevron. The modernization project will make the refinery newer, safer and cleaner by replacing older equipment with new systems that use modern technology. Upgrades will make equipment more reliable and ultimately improve community and worker safety, improve air quality and asked to move forward with the modernization project.

Greg Karras, Communities for a Better Environment, thanked the Commission for allowing him to speak and said he was meeting with Chevron management on ways to expand and roll out the solar jobs program. This is different from the options presented in the EIR in some ways they might find agreement on. Secondly, they will need more than 45 days to fully review and verify the EIR and suggested a 90-day comment period, and questioned how many people have actually read the entire document of 500 pages. He asked to do this right the first time and asked to keep in mind that even if the Commission rubber-stamped it today, the construction is not scheduled to start until 2015. Thirdly, he referred to Appendix 4.3 around page 23/24 and quoted, "In addition to the violations mentioned earlier, the EIR identified that the dirtiest source in this refinery or any refinery, the fluid catalytic cracker is exceeding its continual emissions on VOC and particulate matter or PM10 by a long ways." This is because it has not been monitored correctly.

Commissioner Reyes asked Mr. Karras to repeat the last item.

Mr. Karras continued, stating that the last time this refinery did a major project about 20 years ago, it turned out that the Clean Fuels project was really a fluid catalytic cracker expansion, from about 61,000 barrels a day to a maximum of 90,000 barrels a day and an average annual limit of 80,000. There was a lot of debate about it and at the time, Councilmember Butt was not on the Council but joining CBE and other community groups and advocating for a better project. During that time, part of the resolution of that was limits were set on the expanded cracker,

particularly the PM10 limit was set in the Air District permit. PM10 is one of the deadliest air pollutants in the Bay Area and statewide and it kills thousands of people annually. It turns out that despite promises, the Air District had never been doing the second half of the test for testing and monitoring until 2009. Since 2009, they found about 4 times more emissions way over the PM10 limit and enough to boost the refinery's whole emissions profile by more than 20%. This is in the EIR and to their credit, the EIR consultants told CBE and not the Air District. Lastly, this does connect to the project because that same source could be expanding its throughput and potentially greatly because of the project specifics. The EIR states that the consultants were directed by the Air District to consider those emissions rather than being necessarily legal violations to include them in the baseline, which makes the baseline bigger and mathematically makes the distance between the project emissions and the baseline smaller and potentially under-estimate the impacts. This is one example and they need to do the full review to get to the bottom of this.

Commissioner Martinez asked and confirmed Mr. Karras' source was Appendix 4.3-Op. The pages are 23/24 where this reference can be found. They also received a whistleblower message around the same time. This EIR revealed it and not all the information is there but they are searching District records. On other issues they are still gathering information from the consultants, but this will take longer than 45 days.

Chair Lane thanked the public for participating in the meeting.

Commissioner Willis asked how long the project will take before completion. Ms. Velasco said construction will take about 24 months.

Commissioner Langlois thanked the audience members, said it is important to get as many jobs as they can from this project and be able to approve a clean and safe project. She knows in the project alternative, Chevron turned down the project that would completely repower the refinery using renewable energy. She asked about the possibility of doing a partial project so part of it can be produced by local solar installations which would create local jobs and hedge against the potential risk of cap and trade not fully working. Ms. Hernandez said they have a 2 megawatt project that is CEQA-ready to be implemented. It is on the list of eligible projects for the Community Gas Reduction program. They also looked at an 8 megawatt solar project. The way the refinery consumes energy is spikey and solar and renewable projects tend to produce energy at not a spontaneous rate and during the day. So it is a mismatch in trying to truly power the refinery industrial operations. They looked at this thoroughly and concluded there were opportunities to increase renewable energy generation at the refinery facility as well as community gas reduction program measures like increasing renewable energy production off of Richmond rooftops in residential and commercial sectors.

Ms. Velasco thanked the public participation thus far. Staff is inviting public comment through May 2, 2014. They will return on April 17th to be accepting oral comments before the Planning Commission and she shared the website; www.chevronmodernization.com where people can gain access to the EIR as well as transmittal application information, and they look forward to receiving comments.

COMMISSION BUSINESS

3. Reports of Officers, Commissioners and Staff

Ms. Velasco announced that next week, the Planning Commission will hold a special meeting. Staff will be presenting the preferred land use alternative for the South Shoreline Specific Plan which would then serve as the basis to draft the specific plan and do the environmental work associated with the impacts of implementing that, along with other applications.

On April 17th, she anticipates they will conduct the comment hearing for the Chevron Project. They also released another EIR for the Shea Homes' Bottom property which is also available on the City's website.

Commissioner Reyes asked if the Life Long happening next week. Ms. Velasco said yes it is set for the agenda. Commissioner Reyes confirmed he could speak with Hector Rojas to address any comments.

Commissioner Reyes said he had nothing to report but it has been 10 years since Eduardo, he and Marilyn walked to Sacramento with 140 kids, spent 9 days, spent 8 nights in different churches. They had a good time doing it and it began progression in Richmond.

Commissioner Martinez had no report.

Commissioner Willis announced that Saturday, April 5th at the Nevin Community Center at 11AM, the Mayor and community group Ace along with the Vice Mayor Beckles and Councilmember Jael Myrick are sponsoring a housing preservation fair. This is due to the program Keep your Home California that received $2 billion in funding in 2011. They still have $1.5 billion left and more homeowners are eligible to participate to receive up to $100,000 in principle reduction because more banks are starting to participate with this program.

Vice Chair Choi had no report.

Commissioner Langlois said on April 17th, the Commission will be receiving comments on the Chevron Modernization project and they have a regular meeting on May 1st. She asked and confirmed there will be no meeting on April 24th.

Commissioner Butt said the Point Molate Beach has reopened and the City is holding a grand opening on Saturday, April 19th from 10AM to 2PM. He reported that there was an article in the newspaper about Bruce Beyaert and his efforts with the Trails for Richmond Action Committee (TRAC) in terms of opening the Bay Shoreline and advocating for trails. He applauded his efforts.

Chair Lane said the Commission has multiple meetings this month and she thanked the Commission for their work.

Adjournment - The meeting was adjourned at 9:27 p.m. to the next regular meeting on April 17, 2014.