

Review of Hyperion Refining LLC Planned Development Application for Union County and Recommendations for Changes

General Comments

- a. The Planned Development Application, “Application”, seeks to amend the current Union County Zoning and Subdivision Ordinance by setting aside an area to be developed as an oil refinery. The Union County ordinance permits this as part of a Planned Development application. The ordinance states that *“The provisions of this article are to be applied in instances where . . . the overall design of such units is so outstanding as to warrant modification of the standards contained in this ordinance”*. The ordinance goes on to state that *“a planned development, to be eligible under this Article, must be: 1. In accordance with the comprehensive plans of the County”*.

The Union County Comprehensive Plan identifies multiple objectives in its purpose statement including:

“To improve the physical environment of the County as a setting for human activities, to make it more functional, beautiful, decent healthful, interesting and efficient

To bring professional and technical knowledge to bear on the making of political decisions concerning the physical development of the county”

Given the preceding language from the Zoning and Subdivision Ordinance and the Union County Comprehensive Plan, **the County Commissioners will have an obligation to perform a critical review of the Hyperion Application adding the appropriate technical expertise to allow them to evaluate whether the Application serves the public interest now and in the years to come.**

- b. Once the land is developed, the impact to the land is irreparable. You can never go back to the original pre-development condition. And so, developments of this scope and magnitude require careful, studied and thoughtful consideration of all the potential impacts to the land, the community and the environment.
- c. We agree that the Planned Development approach is the best way to handle approvals for the property. The type of development contemplated is special and unique and will require zoning language specific to this particular use.

Specific Concerns

1. No expiration of the Planned Development approval – The proposed ordinance has no real expiration of the approval so long as the applicant is making some attempt. A more appropriate way to deal with this is to set an outside limit on the approvals if construction has not commenced.

2. Size of the Buffer Area – The 1/8th mile buffer seems like a lot until you realize that it is only 660'. The picture in Figure 1 was taken 1/8th of a mile away from an existing oil refinery. Of particular concern is the definition of what is allowed to be constructed with the buffer area.



Figure 1

3. Useable Open Space – The proposed ordinance uses the term “usable open space” under the definition of Maximum Lot Coverage. Based on the proposed ordinance parking lots, concrete aprons, rail yards, pipe farms and other “flat structures” are considered “usable open space”. Under the proposed zoning a rail yard with associated buildings could be constructed in the Industrial Transition Zone. The County should consider making open space just that; space that does not have structures or other improvements on it.
4. We have a general concern about the speed with which this project seems to be moving through the approval process. The complete development will become a permanent part of the community. Such a major shift in the use of the land would benefit from a thoughtful planning process that allows for sufficient community input. The County may want to consider a moratorium on industrial developments until the issues can be properly studied. Other communities have used such an approach to lay out a comprehensive program that allows for proper development.
5. The plan appears to develop land right up to the Brule Creek. The County may want to consider a riparian buffer along the creek as a condition of approval.

Noxious Odors

Anyone who has spent time around refineries will tell you that they all emit noxious odors on a regular basis. What provisions have been made to control the amount and frequency of Onnoxious odor emissions?

Cost Considerations

Emergency equipment, training & staff

While the refinery may have on-site staff and equipment to deal with minor emergency situations, a major event will draw on the resources of the surrounding community. Fighting fires in refineries and petroleum storage facilities requires expensive specialized equipment and extensive specialized training for the personnel involved.

Emergency response issues are not limited events on the plant property. Suppose a tank truck were to have an accident and catch fire on a county road. Emergency response teams will need to draw on County resources to deal with such an event.

The County does not presently have the capability to adequately support a serious event at the refinery. How does the County plan to acquire the necessary equipment, add additional personnel and train them? How will this be funded, particularly since tax revenues from the project will not begin to flow until it is completed.

While emergency services are funded separately from the county, the Commissioners have an obligation to see that the community health and welfare is protected.

Education System

The Hyperion site is located completely within the Elk Point Jefferson School District and as such will place an unusual burden on the existing community. The influx of construction workers and refinery workers will bring with them children who will need to be educated. This will place an immediate burden on the Elk Point-Jefferson School District. Expansion of the existing system to meet the educational needs of the new residents will happen before significant tax revenues are generated to fund the educational infrastructure.

Social Services

The County will need to provide additional social services to the influx of people who will construct and operate the facility. At its peak the construction of the facility is expected to employ 8,000 people. Granted, some of these will be people already living in the surrounding community. However, a large portion will be transient construction workers. A portion of these workers will need the normal County social services such as counseling, day care, substance abuse, domestic abuse, child services, etc. How will the County pay for, train and develop personnel to provide the resources? What plan is in place to develop these services prior to influx of people associated with the construction of the facility?

Hospital

Union County does not have a hospital located in the County. The nearest major hospital is over 45 minutes away. A smaller hospital is located 15 minutes away in Vermillion. The influx of construction workers and ultimately refinery workers will place an added burden on medical

care in the area. What provisions have been made to supplement the existing medical care systems to properly serve the community?

Emergency Medical Services

Similar to the issue related to hospitals, what provisions have been made to provide emergency medical services for the added workers, both at the facility and where they will live?

Waste disposal

The construction and then refinery operations will generate a considerable amount of solid waste. Does the County have adequate facilities to handle and dispose of this waste? Will additional County dollars need to be expended to construct additional or expanded facilities?

Police

The influx of construction workers and new residents will place a strain on existing police services and the court system, particularly during the construction period. How will these additional requirements be financed since tax revenue from the refinery will not have commenced?

Water

Refineries use large quantities of water in the refining process. The application does not address specifically where the water will come from, where it will be discharged and the quality level of the discharged waste.

Questions the County should be asking in this regard are:

- What is the impact on the local aquifer and watershed of withdrawing these quantities of water? What is the impact on plant and animal life?
- What will happen during drought conditions? Will the plant agree to a reduced production capacity during periods of low rainfall?
- What quantities of water will be drawn from underground vs. local bodies of water?
- Specifically where will waste water be discharged and what level of contaminants will be permitted in the water when it is discharged?
- Will monitoring wells be established around the perimeter of the site to monitor ground water contamination? The history of refining operations is full of stories where the ground water is contaminated with petroleum pollutants. The resulting petroleum plume could potentially affect surrounding residences that depend on well water.

Traffic

Other than in general terms, the application does not address the influx of traffic related to the construction of the plant or the on-going operation of the plant. Since travel will be over County roads, the burden of repair and maintenance will fall on the County. The application states that the surrounding roads will need to be upgraded and this will be done in conjunction with state and local officials. However, the application does not mention who will shoulder the cost burden. The County may want to consider requiring the applicant to build new roads between the Interstate and the subject property that are properly sized to handle the anticipated truck traffic at the applicant's cost.

County Staff

Projects of this magnitude require a considerable amount of administrative staff to review engineering calculations, conduct planning studies, review building and construction plans, etc. Has the County properly anticipated the amount of staff that will be required to perform all of these oversight functions?

Terrorism/Security

What provisions have been made to protect the surrounding community in the event of a terrorist attack on the completed refinery? The storage of large quantities of petroleum products and dangerous chemicals make refineries prime targets. Does the County have a sufficient action plan in place including manpower and other resources to deal with events such as this?

Condemnation Issues

The plan submitted by Hyperion does not identify the location associated support functions for the refinery. For example fresh water will need to be piped in and the oil lines that supply the refinery do not currently exist. These pipe lines in addition to rail lines will all need to cross private property. Is it Hyperion's intention to acquire the land and right-of-way for these through condemnation proceedings after approvals have been granted?

Exhibit "C"

The primary uses listed in Exhibit "C" are quite broad and include things such as power plants, "manufacturing of any type", landing strips, rail yards, landfills, etc. Once the Planned Development is approved, the property could be sold to a third party and any of these different primary uses could be constructed. For example, if for some reason the refinery was not constructed, the property could be sold and an enormous landfill could be constructed. Not only would there be environmental, property value and visual concerns, but the contribution to the local economy would be significantly reduced. We would recommend that these other uses be listed as "Accessory Uses" to the primary Refinery use.

Exhibit “D”

The language for temporary use structures is quite loose. Temporary structures have a way of becoming permanent. We would recommend that the language be tightened to place time limits on temporary structures and also define construction standards. In addition, we would recommend replacing the words “related to” with “required for”.

Community Options

Port Arthur, Texas Example

Communities are not without options as they relate to the construction of refineries. In 2006 the community of Port Arthur, Texas reached an agreement with Shell Oil on an expansion of an existing plan to provide:

1. Install pollution controls for cancer causing benzene air emissions from its waste water system not required by law
2. Fund a new ambient air quality monitor to measure air pollutants such as hydrogen sulfide that are not being measured at this time in Port Arthur
3. Deliver to CIDA Inc. two new hand-held air pollution monitors to enhance the community’s ability to identify pollution and odors
4. Enhance the community disaster warning system
5. Obtain an advanced hydrogen sulfide odor detection device to aid the community in identifying and eliminating noxious odor sources
6. Install air pollution controls more quickly than originally proposed
7. Provide funding to the community for better access to community health facilities and
8. Provide for a better exchange of information with the neighbors, including an annual environmental report to the community

Specific Recommendations

The proposed ordinance change from Hyperion Refining, LLC, before the Union County Commissioners includes significant modifications to the existing County Ordinance which defines for the future how the site will be developed. Certainly the Commissioners will not approve the proposed ordinance as submitted, without any modification; and so this document outlines some suggestions regarding appropriate areas of the ordinance which need modification or further investigation.

1. Hire an outside consultant to perform a **Risk Management Plan/Emergency Services Study** – The County needs to be prepared with sufficient equipment, manpower and other resources to deal with emergencies at the refinery. To suggest that this will be handled internally by Hyperion does not address the seriousness of accidents, discharges, fires and explosions that seem to occur regularly at refineries around the country. Witness the recent fire and explosion at Big Spring, Texas on February 18, 2008. The fire was brought under control in about an hour but burned for most of the day. The effects of the blast were felt three miles from the refinery.

There are several firms who prepare these types of analysis for local communities. This would allow Union County to adequately plan and prepare for emergencies associated with the construction and operation of the facility and to define the additional costs to the local fire districts.

2. Retain an outside consultant to prepare an analysis of the **impact on the Elk Point-Jefferson School District** addressing short term needs as well as the long term impact. The consultant would work with the Elk Point-Jefferson School District to map out a short and long term strategy for dealing with the school age population influx. Rather than wait for the students to show up, a proactive plan would enable the local school system to provide sufficient facilities, resources and staff so that the educational experience for the current student population is not watered down by overcrowding.



Figure 2
SOURCE: CNN.COM



Figure 3
SOURCE: CNN.COM

3. Require that as a part of the approval Hyperion **install perimeter ground water monitoring wells** maintained by an independent third party to protect the interests of surrounding residences and farms. A well documented issue surrounding refineries across the country is contamination of the groundwater system. Monitoring wells would provide an early warning system to existing home and farm owners.

4. Abandonment Issues – There is no provision in the proposed ordinance to deal with issues related to the project being abandoned. If the project is commenced and then economic conditions change and the project is abandoned there is no way for the County to deal with the economic impact of an abandoned industrial project. **The proposed ordinance needs to be amended to include financial guarantees to protect the County** in the event that the project is abandoned.

5. **Prepare a traffic study to quantify the impact to County roads** including what upgrades will be necessary to handle the construction traffic and on-going operations. The refinery will place an additional burden on County roads which should be quantified so that the upgrades can be included as a cost that Hyperion covers as part of the construction of the plant.

There has been discussion of the State of South Dakota making certain improvements to the road systems. If the state intends to step in and provide assistance this should be confirmed in writing before the Application is approved.

6. The proposed new ordinance for the Hyperion site (page 61 of the application) while cleverly drafted, requires specific modifications before it can be approved by the residents of Union County.

a. **The “open space” isn’t really open space** – In Article 2.4, the ordinance notes that there will be a minimum of 60% “usable open space”. The problem here is in the definition of “usable open space”. The existing County ordinance does not define the term “usable open space”. However, Section 409 of the proposed ordinance defines “usable open space” as the same as the word “Yard” in Section 2302 of the current Zoning Ordinance. If we look at the “Yard” definition, we see that it is defined as “*a required open space, other than a court, unoccupied and unobstructed by any structure or portion of a structure from thirty (30) inches above the general ground level...*”. So according to the proposed ordinance all of the following could be constructed in the “usable open space”:

- Roads
- Parking Lots
- Railroad Yards

- Concrete pads
- Impoundment basins
- Pipe farms
- Equipment storage

This section of the proposed ordinance must be modified so that no structures of any kind are permitted in the “usable open space”, so that it is truly open space.

b. **There is essentially; no time limit on the approval** – The current zoning ordinance in subsection 1305(3) notes that the Planning Commission establishes the time period for construction of the improvements. Section 502 of the proposed ordinance takes away the authority of the Planning Commission in this regard. It goes on to state that the time period to construct the improvements shall be extended to include any period of time that the applicant is using reasonable diligence and that any cause other than that under the sole control of the applicant will be a reason for an extension. The effect of this language is that the approvals stay in place forever; even if the plant is not started or completed.

Section 602 contains similar “no expiration” language for the building permit. In fact the building permit never expires until the project is totally 100% complete.

c. The proposed ordinance contains a wide range of permitted industrial uses (Exhibit “C”) unrelated to the construction of the refinery. Because the proposed ordinance places no limits on completion of construction, any of the permitted uses could be constructed on the site and then sold off by Hyperion. **The proposed ordinance should be revised to list the refinery as the sole permitted use** and the other uses as “Accessory Uses” related to the refinery.

d. Section 501 – Hyperion has submitted only vague general concept plans as part of the application for the project. Section 501 addresses the idea that detailed plans will be forthcoming. However the ability of the County to impose any normal planning or engineering standard is completely restricted by the language here which states that the detailed plans are deemed in accordance with the General Plans if 1) they are a permitted use 2) they comply with the very limited requirements of Section 406 and 3) they meet with the lot and setback requirements of Sections 407-10. **Section 501 of the proposed ordinance should be modified to allow the detailed plans to be subjected to the normal County review process.**

e. Limitation on Fees – **Section 603 is probably the most offense language in the entire ordinance** in that it limits the ability of the County to charge fees specific to the

refinery project; forever. This section restricts the County's ability to recover costs associated with the refinery operation in perpetuity. Under current law, the County has certain limits on the taxes and fees that can be imposed and Hyperion should be content with that. Section 603 should be stricken from the ordinance.

9. Require the Submission of a General Development Plan

- a. Provide a General Development Plan as a component of the change to the zoning language. The General Development Plan should be in a written and graphic format indicating the general location of the proposed development. It should include the location of primary access points, location of anticipated primary uses and secondary/accessory uses, general project phasing, open space and buffers, along with the location of environmentally sensitive lands. The General Development Plan should include an environmental impact statement and stormwater management report.
- b. This process will help the County and community to understand the big picture. It will also help to uncover land use conflicts that could be created between existing and proposed developments.
- c. The General Development Plan will provide a picture of the expected development and provide the County a framework for the approval of site engineering plans and building permits.
- d. This plan will allow the county to anticipate the impacts to the community from the development, traffic, and influx of temporary and permanent employees.

10. Require that Hyperion Cover the Cost of Additional Studies – A common practice in other municipalities is to have the applicant reimburse the municipality for the cost of additional studies to properly evaluate an application. Union County should not be expected to shoulder the financial burden of bringing in the necessary technical expertise to properly evaluate the Hyperion Application.

Specific studies include:

- Risk Management Plan/Emergency Services Study
- Elk Point-Jefferson School District Impact Study
- Traffic Impact Study
- Groundwater Impact Study

11. Require that Hyperion **identify the proposed routes for water lines, rail lines and oil pipelines** serving the refinery so that affected property owners can be alerted.
12. **Tightened the language on temporary structures** to place time limits on when they must be removed and define the construction standards which will govern their construction. In addition, we would recommend replacing the words “related to” with “required for”.
13. **Require a Groundwater Impact Study** – Oil refineries consume huge amounts of water. The impact to the local water supply needs to be adequately addressed in a complete Groundwater Impact Study..
14. Finally, the Application seems to be progressing through the approval process using every shortcut available to provide a speedy approval. We would recommend that a **Study Group be formed to provide input and feedback to the County Commissioners before they vote on the Application.** The Study Group could serve as a clearing house for additional technical work that needs to be done to properly evaluate the Application. The Study Group would be comprised of:
 - a. Local business community leaders
 - b. Local residents
 - c. County officials
 - d. Emergency Services representatives
 - e. Elk Point-Jefferson School District representatives
 - f. Legal Counsel
 - g. County Engineer
 - h. Planning experts

The Study Group would be charged with coming up with options and recommendations for the County Commissioners to consider before voting on the Application.

Reviewers

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Mr. Connor is President of Remington Group, Inc a project management company located in Wayne, Pennsylvania. Mr. Connor has served his local community during the past fifteen years

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Ms. Thomas is Vice President of Glackin Thomas Panzak, a land planning firm located in Paoli, Pennsylvania. Ms. Thomas provides consulting and design services for builders and developers and works closely with advising municipalities on land use and zoning issues. Her previous professional experience has included employment at a county planning commission. She has over 25 years of experience as a land planner and landscape architect.

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