

OIL AND GAS DOCKET NO. 05-0205061

COMPLAINT OF VARIOUS RESIDENTS AND/OR PROPERTY OWNERS OF THE POINT OF VIEW SUBDIVISION OPPOSING THE ISSUANCE OF FORM H-9 TO ULTRA PETROLEUM (U.S.A.), INC. FOR THE WHITE ESTATE LEASE, WELL NO. 1, CEDAR CREEK, S. (SMACKOVER) FIELD, HENDERSON COUNTY, TEXAS

APPEARANCES:

REPRESENTING:

FOR MOVANT:

Bill Black, Attorney
Don Dunbar, Jr.
John F. Taylor
Robert A. Lang
F.C. Stewart
J.M. Dyer
William J. Campbell
Marshall Funk

Point of View Residents

FOR RESPONDENT:

John Soule
Cecil Gritz
Bill Rittenberry
Bascom Mitchell
Louis S. Torrans

Ultra Petroleum (USA)

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

DATE OF REQUEST FOR ACTION: March 16, 1994
DATE CASE HEARD: May 3, 1994
HEARD BY: Jeff Pender, Hearings Examiner
Thomas H. Richter, Technical Examiner
PFD CIRCULATION DATE: August 26, 1994
CURRENT STATUS: Protested

STATEMENT OF THE CASE

On or about January 27, 1994, Ultra Petroleum (U.S.A.), Inc. filed a Form H-9 (Certificate of Compliance Statewide with Rule 36) in connection with the planned drilling of Ultra's White Estate No. 1 well. Ultra's Form H-9 was approved by the Commission's District Office on or about February 10, 1994, subject to certain requirements set forth in a letter from the Commission to Ultra dated February 14, 1994. One of the requirements was that Ultra file a contingency plan.

The purpose of a contingency plan is to provide an organized plan of action for alerting and protecting the public following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan must provide for:

1. Immediate activation upon detection of a potentially hazardous volume of hydrogen sulfide;
2. Variations in conditions that might exist in the area of exposure;
3. Procedures and instructions for alerting the general public and public safety personnel of the existence of an emergency;
4. Procedures for requesting assistance and for follow-up action to remove the public from an area of exposure;
5. A call-up list including various emergency health, fire, safety and regulatory personnel;
6. A plat detailing the area of exposure;
7. A list of names and telephone numbers of residents and responsible parties for each of the possibly occupied public areas or facilities within the area of exposure; and
8. A plan for advanced briefing of the public located within the area of exposure.

After a contingency plan was filed, but before it was approved by the Commission staff, complaints were filed by residents who live in the vicinity of the proposed well objecting to approval of the contingency plan. As a result of those objections, a hearing was scheduled to consider Ultra's contingency plan and any objections to that plan.

Statewide Rule 36 requires that operators "provide safeguards to protect the general public from the harmful effects of hydrogen sulfide." There is no dispute that Ultra must comply with Statewide Rule 36 and have an approved Certificate of Compliance (Form H-9) before drilling the

White Estate No. 1 well. The only issue in dispute is whether Ultra's Contingency Plan complies with the requirements of Statewide Rule 36.

DISCUSSION OF THE EVIDENCE

ULTRA'S EVIDENCE

Ultra plans to drill and complete its White Estate No. 1 as an oil well in the Cedar Creek, South (Smackover) Field in Henderson County, Texas. The Smackover formation is productive of hydrocarbons containing hydrogen sulfide. Operations involving hydrogen sulfide are not uncommon in East Texas, particularly in Henderson County. There are numerous Smackover fields located in Henderson and surrounding counties. The Commission has approved contingency plans for many sour gas wells in Henderson County, including one that was protested for a well in the subject field within approximately three miles of Ultra's proposed location. Other contingency plans have been approved for much larger radii of exposure, some even including a major interstate highway. In addition to other sour gas wells in the area, the Trident Eustace Gas Plant, which processes sour gas, is located only five miles from the location of the White Estate No. 1 well. The protestants' property is within the 100 ppm radius of exposure for that plant.

Ultra has contracted with Hinton Drilling Co. to drill the proposed well. Hinton has significant experience drilling sour gas wells. The proposed well is a "replacement" well for a previous well drilled from the same location to the same reservoir by North Central Oil Corporation in 1985. The North Central well, the White Heirs No. 1, was completed and tested in the Smackover formation, but was never produced because no pipeline was available. Because of this previous completion, Ultra knows what pressures and gas concentrations to expect, thus reducing the risks associated with drilling the well. For example, Ultra knows it can drill the well using normal mud-weights. Ultra calculated the radius of exposure based on actual data instead of having to rely on estimates of expected hydrogen sulfide concentration. Once the well is completed, there will be no separation facilities at the well location. The full wellstream will be transported to another location for separation and treatment.

With the assistance of Denmon's H₂S Safety Service, Inc., Ultra has developed a contingency plan for educating the public prior to commencement of drilling and for notifying and evacuating the public in case of emergency. Denmon's specializes exclusively in work associated with safety of hydrogen sulfide operations. As part of its contingency plan, Ultra has already identified and hand-delivered letters to all persons within the 100 ppm radius of exposure. There are almost 300 residences on the public inventory. Educational meetings will be held in advance of drilling to explain the procedures that will be followed in the event of an emergency. In the event of an emergency, notification of persons within the 100 ppm radius of exposure will be done by a combination of siren, loud speakers, telephone calls and personal visits. Alternative evacuation routes, including some marine (water) routes, have been developed. Emergency personnel will be available to direct traffic and to assist with the evacuation. There will be an employee of Ultra on

site at all times once compliance depth (one thousand feet above the first zone known to contain hydrogen sulfide) is reached until the well is completed. That person will have the authority to take whatever action is necessary to protect the public, including igniting the well in order to burn the gas and prevent the dissemination of hydrogen sulfide if that becomes necessary. The time from reaching completion depth until the well is completed, the time of greatest risk, is expected to be only three weeks.

PROTESTANTS' EVIDENCE

Protestants are residents of the area surrounding the proposed well location. Some of the residents live on a peninsula between the well and Cedar Creek reservoir. Under certain wind conditions (blowing from west or southwest), at least some of the protestants may not have a land evacuation route.

Protestants expressed a variety of concerns in opposition to approval of the contingency plan. Protestants first presented testimony based on assumptions that suggested the North Central well completed at the location of the proposed well may have been abandoned because of concerns about safety. Protestants next presented evidence that applicant's list of telephone numbers in the contingency plan contains errors. Protestants also raised concerns about the reliability of local phone service, noting that there have been several outages in the recent past. Protestants raised questions about the adequacy of the road system for a mass evacuation and expressed concerns about the adequacy of the barges to be used for any marine evacuation. Protestants raised concerns about the adequacy and availability of public safety personnel for traffic control and other safety measures in the event of an emergency. Protestants also expressed concern about notification of children playing in the area and the sufficiency of evacuation plans if there were additional people in the area for a party or other function. Protestants also noted that there have been blow-outs in hydrogen sulfide wells in the area.

EXAMINERS' OPINION

According to Rule 36(b)(10), a contingency plan is a document that provides "an organized plan of action for alerting and protecting the public within an area of exposure following the accidental release of a potentially hazardous volume of hydrogen sulfide." The examiners believe Ultra's current contingency plan satisfies the requirements of Rule 36 and should be approved and that the Commission should confirm the previous approval of Ultra's certificate of compliance (Form H-9).

Protestants' concerns focus on the adequacy of the contingency plan and the location of the well. The examiners ruled that evidence of an alternative location for the well is not relevant. Ultra has proposed a location and seeks approval of a contingency plan for that location. The appropriate response of the Commission is to approve the contingency plan, with or without modification, or to decline to approve the contingency plan.

The examiners understand and appreciate the concerns of protestants relating to the contingency plan, but believe Ultra has satisfactorily responded to each of those concerns as discussed below.

100 and 500 ppm Radius of Exposure (ROE). Protestants are concerned that if a release of hydrogen sulfide were to occur, the concentration of hydrogen sulfide would rise so fast that any evacuation plans would be ineffective. The ROE calculations are made assuming a worst case (maximum dissemination) scenario. Concentrations would approach the maximum only downwind of the well. It would take time for the concentrations to reach the maximum level at the maximum distance. Mr. Gritz testified that it might take a half day to contaminate the area within the 500 ppm radius up to 500 ppm whereas, the entire 500 ppm area would be evacuated in approximately one hour. For exactly these reasons, the contingency plan calls for those downwind and closest to the well to be evacuated first.

Public Safety Personnel Within Contaminated Area. Protestants expressed concern that public safety personnel would not be permitted within contaminated areas and therefore would not be available to assist with notification and evacuation. Protestants apparently have a basic misunderstanding of the term contamination. Contaminated areas are areas that have sufficient concentrations of hydrogen sulfide that presence within the area without protective equipment would result in serious injury or death. If a leak were to occur, the area would be evacuated before it becomes contaminated. That is the purpose of a contingency plan. Public safety personnel would not only be present in the area, they would be a vital part of the notification and evacuation process.

Calm Wind. Applicant's contingency plan is to evacuate those persons downwind of the well first if evacuation should become necessary. Among those persons downwind, those closest to the well will be the first to be evacuated. Protestants expressed concern about evacuation if the winds were calm, which presumably would result in circular dissemination of hydrogen sulfide gas all around the well instead of primarily downwind. Although the distribution would be circular in calm wind situations, the dissemination away from the well would not be as fast. Evacuation would be in concentric circles around the well instead of in a linear downwind pattern.

Concentrations in Low Areas. Protestants expressed concern that escaping hydrogen sulfide would concentrate in low areas, including boat docks that under certain wind conditions might be the best or only evacuation points. If there were to be a leak and evacuation were necessary, evacuation would be complete before hydrogen sulfide gas reached the boat docks.

Land Evacuation Routes. Protestants raise concerns about the land evacuation routes and whether they would be sufficient to carry all the traffic required for an evacuation. Ultra has identified sufficient alternative routes to ensure evacuation in an orderly and timely manner. Land routes include access to a private road leading south out of the area that will relieve congestion on the main road west in the immediate vicinity of the well. Based on the availability of these routes, together with marine evacuation if necessary, applicant estimates it will take three to four hours to

evacuate the 100 ppm radius of exposure and approximately one hour to evacuate the 500 ppm radius of exposure. These times should provide a more than adequate safety margin.

Marine Evacuation. Protestants expressed concern about the adequacy of the barges intended to be used for marine evacuation. Marine evacuation would be necessary only under certain wind conditions (winds from the west or southwest). If marine evacuation becomes necessary, up to 152 people may require such evacuation. Ultra plans to use three pre-positioned barges with a carrying capacity of 20 persons each. With a round-trip duration of approximately 20 minutes, everyone can be evacuated within approximately one hour, again providing an adequate safety margin.

Unexpected People in the Area. Protestants raise concerns about unexpected people in the area and whether they could be notified and evacuated under a plan that does not take them into account. Protestants mention, for example, the possibility of a party involving large numbers of guests and vehicles. In any event, the contingency plan identifies sufficient alternative evacuation routes to ensure that all persons in any danger can be evacuated.

Telephone Service. Protestants expressed concern about the reliability of the telephone system Ultra would use to notify people if evacuation becomes necessary. While there have been some problems with the telephone system, it remains a viable means of notifying most people most of the time. In recognition of the potential problems cited by protestants, Ultra has provided for alternative means of notification in its contingency plan. First of all, everyone in the area will be notified when compliance depth is reached so they can be extra alert during the following three-week period until completion of the well. Secondly, meetings will be held prior to reaching compliance depth, and after a siren has been installed, to educate residents as to what procedures to follow if the siren sounds. Thirdly, Ultra plans to install a loudspeaker system, with speakers on numerous telephone and utility poles in the area. Finally, safety personnel will personally secure the area to ensure that everyone has been evacuated, if evacuation is necessary. The alternative means of notification provide a redundancy that will ensure adequate notification in the event of an emergency.

Telephone Numbers in Contingency Plan. Protestants presented testimony suggesting the list of telephone numbers to be used to notify residents in the event of an emergency contains errors. Ultra responded by stating that it would continue to update and revise its list in order to have the most accurate list possible. These efforts, together with the alternative means of notification discussed in the previous paragraph, will ensure proper notification of any emergency situation.

Blow-Outs. Protestants expressed concern because of blow-outs involving other hydrogen sulfide wells in the general vicinity. The current version of Statewide Rule 36 is in part a response to these previous incidents. Rule 36 now provides certain safeguards that were not in place at the time of the previous blow-outs. Furthermore, the proposed well is to a known reservoir, with known pressures. The pressures are normal pressures so the well can be drilled with normal-weight mud. The well is expected to be completed as an oil well. High pressure gas should therefore not be the problem it was in the wells where problems were experienced in the past. All of these factors make

the risk of a blow-out or other catastrophic leak extremely unlikely. In the unlikely event such a leak were to occur, applicant is committed to igniting the well to provide sufficient time to evacuate the area and ensure public safety.

North Central White Heirs No. 1. Protestants testimony regarding the reasons why North Central plugged and abandoned the White Heirs No. 1 was offset by testimony sponsored by Ultra. Protestants maintain that the well was abandoned because of safety concerns; Ultra maintains it was abandoned for economic reasons. Whatever the reason, North Central's actions are irrelevant to this case. The issue before the Commission is whether Ultra's well can be drilled and completed in compliance with Rule 36. If it can, the certificate of compliance and contingency plan should be approved. There is no dispute that Ultra can comply with Rule 36 except with regard to the contingency plan. The examiners are of the opinion that the contingency plan meets or exceeds the requirements of Rule 36.

FINDINGS OF FACT

1. The following persons were given at least 10 days' notice of hearing in this docket:
 - Ultra Petroleum (USA) Inc. (applicant)
 - Don Dunbar, Jr. (represents several area residents)
 - John G. Soule (attorney for applicant)
2. Pursuant to Statewide Rule 36, Ultra Petroleum (U.S.A.), Inc., has submitted a Certificate of Compliance (Form H-9), together with a contingency plan, with a description of safeguards for drilling and completion of the White Estate No. 1 well, Cedar Creek, S. (Smackover) Field, Henderson County, Texas.
3. The contingency plan submitted by Ultra provides an organized plan of action that will alert and protect the public in the event of an accidental release of a potentially hazardous volume of hydrogen sulfide.
 - a. The contingency plan contains a variety of means of notifying the public of any emergency. These means include public meetings prior to drilling and the use of a siren, loudspeakers, telephones and personal visits.
 - b. The alternative evacuation routes are adequate to ensure the timely evacuation of all persons in the area should evacuation become necessary. The routes include alternative land routes and marine routes using pre-positioned barges.
4. The risks associated with drilling the White Estate No. 1 well are minimal because the well pressures and hydrogen sulfide concentrations are known. The reservoir has normal pressures and the well is expected to be completed as an oil well.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.
2. Review and approval of Statewide Rule 36 Certificates of Compliance (Form H-9) is a matter within the jurisdiction of the Commission.
3. The Ultra Certificate of Compliance and contingency plan for the White Estate No. 1 well, Cedar Creek, S. (Smackover) Field, Henderson County, Texas, comply with the requirements of Statewide Rule 36.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend Ultra's Rule 36 certificate of compliance and contingency plan for drilling and completing the White Estate No. 1 well be approved in accordance with the attached final order.

Respectfully submitted,

Jeffrey T. Pender
Hearings Examiner

Thomas H. Richter
Technical Examiner