



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-GN101230041K-13

MEMORANDUM

To: Holly Refining & Marketing Company – Woods Cross LLC– Heavy Crude Processing Project - Source Files 101240041-13

Through: Marty Gray, New Source Review Section Manager, UDAQ

From: Camron Harry, Engineer, New Source Review Section, UDAQ

Date: November 18, 2013

Subject: Response to Public Comments

Introduction

An Approval Order (AO) for Holly Refining & Marketing Company – Wood Cross LLC (Holly Refinery) was proposed for the Heavy Crude Processing Project. A public comment period ran from December 4, 2012 thru January 28, 2013. The comment period was extended twice at the request of the public for more time to review. A public hearing was held on January 3, 2013 in accordance with R307-401-7. Public comments were received at the hearing and throughout the comment period.

Based on the comments received during the initial public comment period and public hearing, the Heavy Crude Processing project was modified. The changes to the permit include the following: Removal of the reliance on reductions required by the 2008 EPA Consent Decree, replacement of four existing gas-fired compressor engines with four electrical engines, a proposed gas fired heater Unit 26H1 was modified to be an electric heater, EPA-published AP-42 emission factors for PM were replaced with EPA-published National Emission Inventory emission factors, and change of baseline actual emission 24-month periods for criteria pollutants. As a result of the changes outlined above, the Prevention of Significant Deterioration (PSD), Major NSR offsetting applicability, and netting analysis calculations were modified, and permit caps for NO_x, SO_x, and PM₁₀ were reduced. The project remains PSD for CO and GHGs and BACT determinations were not modified although additional information was included.

The June 10, 2013 Source Plan Review (SPR) addressed general comments received during the initial public comment period and hearing. Those comments include the following: relocation of the Holly Refinery and cost v. health benefit (BACT Review Note 1, pp. 14-15); increased transport truck traffic comments (Reviewer Comment 3, pp. 78-79); and triggering the requirements of R307-403-1 for LAER (Reviewer Comment Note 12, p. 87).

This revised project was put out for a 45-days public comment period starting on June 10, 2013, ending on July 25, 2013. A public hearing was held on July 11, 2013 in accordance with R307-401-7.

Both Intents to Approve (ITA) for this project were properly noticed and all information related to this project was available for public review during the comment periods. The comments received during the second public comment period are identified below along with UDAQ's response to the comment.

While preparing these responses, UDAQ requested that Holly Refining provide additional information regarding points raised by some comments. Holly Refining responded in a letter dated November 7, 2013, which included the information requested. UDAQ reviewed the supplemental information, and determined that it did not change any of UDAQ's conclusions. However, because UDAQ reviewed Holly's supplemental information, and because it provides additional analysis that supports the UDAQ's final decision to issue the AO to Holly Refinery, UDAQ has included Holly's November 7, 2013 submission in the administrative record and incorporates it by reference into these responses.

Comments

UDAQ General Comment #1: NOTE TO THE READER: In general, most comments that were submitted included various acronyms, contractions and 'terms of art' that are in general use in the field of air quality. Often these are not defined in the submission.

Whenever possible, UDAQ has attempted to define any specific terms used in this response to comments memorandum. However, most definitions, terms, abbreviations, and references used in this memorandum conform to those used in the Utah Administrative Code (UAC) R307 and 40 CFR. Unless noted otherwise, references cited refer to those rules. As it is possible that a specific term may have been overlooked, and for the ease of the reader, UDAQ is attaching a commonly used acronym list to this document.

References to the SPR BACT Notes or Reviewer Comments within this comment are in refer to the June 10, 2013 SPR associated with the June 10, 2013 ITA for the Heavy Crude Processing project.

Comment #2: During the July 11, 2013 public hearing 14 comments were received in general support of the Holly Refinery expansion.

UDAQ Response: As these comments raised no technical or procedural concerns with the ITA or the SPR behind it, no changes to the Approval Order (AO) were made.

Comment #3(a): Holly Refinery submitted comments in a July 25, 2013 letter requesting DAQ to reconsider heater NOx stack testing requirements as well as GHG emission factor stack testing requirements. In a letter dated July 26, 2013 Holly Refinery notified DAQ that they no longer wanted to pursue those comments.

UDAQ Response: As Holly Refinery removed their technical and procedural concerns with the ITA, no changes to the AO were made.

Comment #3(b): In addition, Holly Refinery attached to the July 25, 2013 comment letter several responses to comments from the initial comment period that ended in January 2013.

UDAQ Response: UDAQ did not request the Holly Refinery submit these responses as part of the most current June 10, 2013 comment period. Their prepared responses are irrelevant to the current permitting action.; however, a July 29, 1995 letter from UDAQ indicating that a complete Title V Permit application had been received has been included in the record (see response to comment 19). Comments otherwise noted, no changes to the AO were made.

Comment #4: Comments from EPA Region 8 were received in letter dated July 25, 2013. These comments are based on Holly Refinery's April 1, 2013 netting analysis submittal to the UDAQ. Holly Refinery had submitted subsequent netting analysis information to UDAQ on April 10, 2013 and April 22, 2013, after which, UDAQ determined the netting analysis to be complete.

Comment #4(a): "In Holly's April 1, submittal, we could not find the basis for the estimate of emissions reduction by converting from gas fired to electric motors for the compressors. We don't know if the estimate was based on stack test or AP-42 emission factors, nor whether the amount of compressor use during the same baseline period was part of the basis for the estimates."

UDAQ Response: The emissions reductions were determined using actual baseline emissions from representative baseline periods. UDAQ refers the commenter to SPR Reviewer Comment Notes 7 & 10 (pp. 83, 85-86) which address baseline actual emissions and the removal of the four (4) compressor engines. As this comment only makes an inquiry and does not raise technical or procedural concerns with the ITA or the SPR behind it, no changes were made to the AO.

Comment #4 (b): "In Holly's April 1, 2013 submittal, the revised PM₁₀ and PM_{2.5} potential-to-emit (PTE) numbers are much lower than in the July 2012 Notice of Intent (NOI). We don't know the basis for such large revision."

UDAQ Response: The revised PM₁₀ and PM_{2.5} potential-to-emit (PTE) calculations are based on emission factors for new (NSPS) combustion sources based on the 2006 EPA-published National Emissions Inventory (NEI) Information, where applicable. SPR Reviewer Comment Note 3 of the June 10, 2013 SPR addresses the change in PM emission factors used in the revised netting analysis. The comment is noted, no changes were made to the AO.

Comment #4(c): "Holly's April 1 submittal doesn't explain what is going to happen to propane storage/unloading if the current storage facility and propane pit flare are shut down. If that activity is going to occur elsewhere at the facility with another flare handling those emissions, then we question whether shutdown of the pit flare will result in actual emission reductions."

UDAQ Response: UDAQ refers the commenter to SPR Reviewer Comment Note 10 (pp. 85-86) which addresses the removal of the propane pit flare. Propane tanks 171, 172, 173 & 174 were added, along with associated emissions, as emission increases in the netting analysis. Therefore, because the increases in emissions from the new propane tanks were accounted for, the reductions from the closure of the propane pit flare qualify as actual emission reductions. The comment is noted, no changes were made to the AO.

Comment #4(d): "Holly's revised netting analysis indicates the refinery wide projected increase will be 37.2 tons per year (tpy) for NO_x. Table 3-4 of the July 2012 Notice of Intent (NOI) indicated that installing the benzene saturation unit #23 and applying a boiler #5 NO_x limit would yield a 2.7 tpy NO_x increase for those activities. However, the revised Table 3-4 puts these same activities at 0.62 tpy NO_x increase. The 3.06 tpy difference would put the project over the 40 tpy PSD significance threshold for NO_x. We could not find any explanation by Holly for reducing the number from 3.7 tpy to 0.64.

UDAQ Response: UDAQ refers the commenter to AO DAQE-AN101230036-10 as it is the permit action where the benzene saturation unit #23 and Boiler #5 NO_x limit were enforced. The Abstract of this AO outlines the emission increase at 0.62 of NO_x, which is what UDAQ relied upon in the netting analysis review. The comment is noted, no changes were made to the AO.

Comment #4(e): “On page 4 of Holly’s revised netting analysis, the first set of equations indicates contemporaneous emission increases of 58.7 tpy for NOx and 186.7 tpy for CO. We could not find the origin and basis for these numbers.”

UDAQ Response: The origin and basis of the emission changes used in the netting analysis are found in SPR Reviewer Comment Notes 8-10 (pp. 84-86), which address contemporaneous projects and associated emission increases. The comment is noted, no changes were made to the AO.

Numerous comments were received from Western Resource Advocates on behalf of Utah Physicians for a Healthy Environment, Friends of Great Salt Lake and Western Resource Advocates (collectively “Western Resource Advocates or WRA”). UDAQ has not repeated the entire text of the letter and attachments in this response to comments, although these documents can be found in full in the project file for this permitting action (project N101230041-13). In general, UDAQ has attempted to include the full text of any specific comment, although particularly long or compound comments may have been paraphrased or split for ease of reading and brevity concerns. Where this has occurred, UDAQ includes a notation. The comments from the WRA are reflected below.

Comment #5(a): “The refinery (and refineries in general) actually emits many times the amount of pollution, VOCs and HAPs in particular, than is reported to UDAQ.” (p. 4)

UDAQ Response: This comment was submitted as a general comment from the “Air Pollution Consequences of Utah’s Refineries” subsection of the “Health Impacts of Air Pollution” introduction of WRA’s comment letter. The comment stems from an April 22, 2010 Associated Press report, which was further based (at least in part) on a July 27, 2007 EPA internal memo regarding the fugitive emissions of VOCs from refineries. This memo addressed a possible concern based on estimating the emissions from refineries located in Europe and Canada, and then comparing these emission values to the reported values from refineries located in Texas and California. WRA did not include either the EPA memo or the AP article for reference. UDAQ has located these documents and included them as attachments to this response memorandum.

The EPA memo hypothesizes that emissions from refineries are generally being underestimated due both to outdated measurement techniques, as well as to omission or exclusion of emissions from singular events – such as breakdowns, startups, shutdowns (collectively SSM), leaks from piping and sewer systems, and tank degassing. The memo discussed that general refinery VOC and HAP emissions could be measured using a ‘differential absorption light detection and ranging system’ and the extrapolated results could then be compared to what this same refinery reported in its emission inventory, and that the results could then differ by as much as 10-20 times for a given pollutant.

There are several problems with attempting to apply a general and somewhat generic newspaper story to a particular refinery, in this case Holly Refinery’s operations. The first, as the memo itself explains, is that the studies performed (in Canada and Europe) appear to match fairly closely with EPA’s own emission factors (published as AP-42) and hence questions the assumption of under reporting of emissions. Second, attempts to extrapolate hourly data to represent annual emissions are flawed given the relatively short sampling period and the inherent assumption that this short sampling period constituted a representative period to extrapolate an annual emissions rate for the refinery being measured. There is a third problem of using measurements from one set of refineries, comparing these values to those reported by a second set of refineries, and then attempting to extrapolate this information to match all refineries as a general concept.

The second and third assumptions are more problematic. The assertion that refinery emissions are under-reported is based on EPA's assumption that refineries are omitting or mischaracterizing significant emissions such as those mentioned above. The Holly Refinery has in fact reported emissions from SSM events and includes estimates of emissions from leaks and other fugitive emissions, and has included VOC emissions from leaks at all affected components as part of its NOI submittal and were addressed in SPR Reviewer Notes 4 & 5 (pp. 79-82).

A news article of questionable relevance is an improper basis for a comment. As this comment raised no technical or procedural concerns with the ITA or the SPR behind it, no changes were made to the AO.

Comment #5(b): Summarizing the next comment, "...Salt Lake County is currently failing to meet the NAAQS for SO₂. Salt Lake and Utah counties are non-attainment for the PM₁₀ NAAQS. Salt Lake and Davis Counties are in non-attainment status for PM_{2.5}. Finally, the Utah governor has requested that EPA declare Salt Lake, Davis and part of Weber County as not meeting the 8-hour ground level NAAQS for ozone, or smog. Although this request was recently recalled, it shows that levels of ozone pollution in the valley hover close to the NAAQS. The violation of ozone standards is particularly relevant to refinery emissions because VOCs are a precursor to ozone." (pp. 4-5)

UDAQ Response: The comment refers to the general state of air pollution, and not with any specific aspect of either the ITA or the underlying SPR. UDAQ is currently developing a SIP for PM_{2.5} where the contribution of Holly Refinery to the valley airshed will be part of that evaluation and condensable limitations will be addressed.

UDAQ processes NOIs and issues AOs based on existing regulations. All requirements from the PM₁₀ and SO₂ portions of the Utah SIP which pertain to the Holly Refinery have previously been incorporated into the AOs issued to Holly Refinery, and such language remains in place in this most recent ITA. This AO will require compliance with rules consistent with the attainment status of the airshed where Holly Refinery is located. As this comment raised no technical or procedural concerns with the ITA or the associated SPR, no changes were made to the AO.

Comment #6: "Human Health Impacts of Air Pollution."

For the sake of brevity, UDAQ has elected to not include the entire text of this comment as it encompassed several pages of the submitted comment letter, and required numerous referrals to included reference documents. The complete comment begins on Page 5 of the comment letter under the heading of "Health Impacts of Air Pollution" and ends with the second paragraph on Page 9 of the letter.

UDAQ Response: UDAQ evaluates and reviews permit applications against current air pollution standards. These standards, established by the EPA, are health-based standards (*see* <http://www.epa.gov/apti/bces/module7/title1/title1.htm> - an EPA webpage that addresses the history and bases for the establishment of NAAQS). Concerns about the adequacy of those standards should be addressed to the EPA. UDAQ's review has determined that the project as proposed in the ITAs meets all applicable requirements. The comments are otherwise noted. However, as this comment raised no technical or procedural concerns with the ITA or the supporting SPR, no changes were made to the AO.

Comment #7: "Unique Toxicity of Refinery Emissions". (pp. 9-10)

UDAQ Response: This is not a comment but commentary on refinery HAP emissions. The comment is otherwise noted. However, as this comment raised no technical or procedural concerns with the ITA or the SPR behind it, no changes were made to the AO.

Comment #8: “Adverse Effects of Air Pollution on Wildlife and the Environment.” (pp. 10-12)

UDAQ Response: This is not a comment but commentary on HAP emissions. The comment is otherwise noted. However, as this comment raised no technical or procedural concerns with the ITA or the SPR behind it, no changes were made to the AO.

Comment #9: “The Possibility of Refinery Row Hot Spot of Carbon Monoxide.” (pp. 12-13)

UDAQ Response: UDAQ disagrees with this comment. A modeling analysis was submitted by Holly Refinery and reviewed by UDAQ. *See Modeling Analysis Review for the Holly Refining and Marketing Company Refinery Located in Woods Cross, Utah*, dated October 9, 2012, which recommended that “no additional conditions are needed in the AO to limit the air quality impact of the proposed source.”

In regards to accounting for increased diesel emission from trucks, UDAQ also disagrees; *see* SPR Reviewer Comment 3 (pp. 78-79). UDAQ’s New Source Review Program is derived from Title I of the CAA. Title I addresses only major stationary sources and major modifications to stationary sources; Utah’s SIP has expanded this program to include minor stationary sources and minor modifications to stationary sources. The CAA Title II, Emissions Standards for Moving Sources, addresses vehicle-based emissions, also known as mobile emissions. As mobile sources do not constitute a stationary source for regulation under Title I of the CAA nor UDAQ’s NSR permitting rules (R307-400), there is no requirement to address mobile source emissions as part of this permitting action, and the commenter identifies none. Accordingly, no changes were made to the AO.

Comment #10: “The Failure to Acknowledge the Economic Impact of Air Pollution.”

“Moreover, this information is skewed, in that no economic cost to the refinery’s pollution is acknowledged. The EPA and many other entities have attempted to quantify the economic cost of pollution. For example the state of Utah sponsored a study whose conclusion was that the pollution from the state’s coal fired power plants caused about \$2 billion dollars [sic] in pollution related damages, and over 200 deaths per year.” (p. 13-14)

UDAQ Response: The information in question was provided as a courtesy and does not represent or replace UDAQ’s analysis of the NOI. UDAQ reviewed the NOI with respect to the air quality rules and regulations that govern such a project. The commenter goes on to state that:

Despite the fact that this agency is mandated to protect public health, nowhere in either the NOI, or the ITA is there any attempt to quantify or understand the health consequences of this refinery’s current emissions, or how much they would change from the proposed expansion. Yes, there are calculations of pollutants in tons, but there is no attempt to calculate the public health cost, the human cost of those tons of emissions. Ironically, the agency mandated to protect us from pollution made no attempt to inform the public what the health consequences are, and they declare such impacts simply as “not significant.”

UDAQ disagrees with this comment, as the project was evaluated using EPA’s health-based standards, consistent with the air quality rules and regulations established to protect those standards. *See also* Response to Comment #6. Further, the commenter does not identify any requirement that UDAQ failed to address. In addition, the commenter indicates that the agency characterizes impacts as “not significant.” However, the only reference to “insignificant impacts” is in the SPR, Reviewer Note 12, which addresses “significant” as defined in R307-101-2 as a net increase in the rate of emissions from a source which would equal or exceed certain pollutant-by-pollutant values (*see* R307-101-2 Definitions – “Significant”). This defined term serves a specific regulatory purpose by defining the scope of the project by the size of the emission increase. The comments are otherwise noted. However, as this comment raised no technical or procedural concerns with the ITA or the SPR behind it, no changes were made to the AO.

Comment #11: “Utah Physicians Hereby References and Incorporates Any and All Comments Submitted by EPA on this Project.” (p. 15)

UDAQ Response: UDAQ disagrees with this comment. Utah Code Ann. § 19-1-305.5(4)(a) states that “...a person who challenges a permit order . . . may only raise an issue . . . that *the person* raised during the public comment period...” (emphasis added). This statutory provision states that a commenter may later raise issues that it had previously identified during the public comment period with enough specificity and support to allow meaningful consideration by the agency. Conversely, UDAQ is aware of no provision of law (and the comment identifies none) permitting one commenter to avoid the statutory responsibility of identifying issues itself by incorporating by reference the comments of another, particularly when the commenter seeking to incorporate may not even be aware of the nature of the comments being proposed by another commenter until after the public comment period closes. The comment is otherwise noted, no changes were made to the AO.

Comment #12: “In Making These Comments, Utah Physicians is Necessarily Restricted to the Record.” (p. 15)

UDAQ Response: The commenter stated that “the adequacy of the [Director’s] permitting decision must be based solely on . . . [the] same record” that the commenter reviewed in order to submit its comments. WRA Comment Letter at 15. It is not clear whether the commenter means that the Director’s record consists only of the review and materials leading up to the issuance of the ITA. If so, the commenter misunderstands the review process. At the time the Director issued the ITA, no final decision had been made on the proposed Heavy Crude Processing project, so it is unclear what “permitting decision” the comment refers to. Based on the entirety of the comment, UDAQ assumes that it refers to the decision to release the ITA for public comment. In that case, the commenter fails to acknowledge that the issuance of the ITA is not a final agency decision, nor is it intended to be. The purpose of the comment period is to allow third parties to evaluate the ITA and provide comment. UAC R307-401-7(3) obligates UDAQ to consider those comments, and where appropriate, make changes to the ITA. Therefore, the adequacy of the record supporting the permitting decision will be based on the record as it stands at the time the final decision is made, and not (as the comment seems to suggest) at the time the draft permit was released for public comment.

The comment period is also a valuable method for alerting the agency to aspects of the ITA that may need additional documentary support or explanation. Through the process of responding to comments, UDAQ reviews its proposed decisions and where appropriate, will request additional information and support from the source or will provide further explanation for various aspects of the ITA. This is the exact purpose of the public comment period. Comment is otherwise noted, no changes were made to the AO.

Comment #13: “Should the Executive Secretary Decide to Supplement the Record or His Analysis in Any Way, the Public Must be Given the Opportunity to Comment on the Additional Material.” (p. 15)

UDAQ Response: UDAQ disagrees with this comment. As an initial matter, WRA provides no citation of applicable law to support the claim it makes in the comment. UDAQ is not obligated to hold an additional comment period, regardless of whether it supplements the record or its analysis. Section 19-1-301.5(8)(b) defines what constitutes the administrative record underlying a UDAQ-issued AO. The statute does not impose a temporal restriction on when the agency may add information to the administrative record. *See* Utah Code § 19-1-301.5(8)(b)(vii) (stating that the administrative record includes “any information that is: (A) requested by and submitted to the director; and (B) designated by

the director as part of the basis for the decision relating to the permit order,” but not imposing any time restraint on when the agency must receive the information).

Additionally, UDAQ regulations governing permits for new and modified sources vest the agency with discretion to modify a proposed AO in response to public comment. This authority is found in UAC R307-401-7, which directs UDAQ “to consider all comments received during the public comment period and at the public hearing and, if appropriate, . . . make changes to the proposal in response to comments before issuing an AO or disapproval order.” This regulation only refers to one comment period, not more, and expressly directs UDAQ, where appropriate, to modify a proposed permit in response to public comment. Nowhere does the regulation mandate that UDAQ re-open the proposed permit to additional public comment when such changes are made in response to public comment, or when in the course of considering public comments, the agency adds to the record. Accordingly, not only is UDAQ permitted to add information to the administrative record in response to public comment and make changes to a proposed AO following public comment, but Utah law does not require UDAQ to re-open the permit to additional public comment if the agency takes such an action.

The reason such supplementation is permitted is obvious. The ITA is a draft, not a final decision. If the agency is not permitted to alter the ITA based on public comment, then the public comments serve no useful purpose. It would be nonsensical to afford an opportunity for public comment if the agency were then held only to the review that lead to the issuance of the ITA, before public comment was solicited. Applicable law contemplates that additional information may be requested from the source and included in the record based on public comments, and that changes may be made to the ITA as a result. Under WRA’s claim, the public comment periods would never end.

Moreover, UDAQ cannot know in advance what public comments will say, and one of the purposes of a comment period is to bring new material to the agency’s attention. Consequently, it may be impossible for the UDAQ to respond without making use of new material, either obtained on its own or from the source. If all new material in a response to comment required yet another public comment period, “the agency would be put to the unacceptable choice of either providing an inadequate response or embarking on [an] . . . endless cycle of reproposals” 45 Fed. Reg. 33290, 33412/1 (May 19, 1980).

Comment is otherwise noted, no changes were made to the AO.

Comment #14: “Utah Physicians Established that the Netting Analysis is Insufficient; the Permit should be reevaluated on those Grounds Immediately.” *The commenter suggests that UDAQ “redo the netting analysis.”* (p. 16)

UDAQ Response: UDAQ disagrees with this comment. It is unclear to what “attached technical comments” the commenter is referring that “make clear” that the project is not a minor modification, nor is it clear what the commenter means by “the issues the organization raises.” Without the requisite specificity or analysis to place the agency on notice of what the comment intends, UDAQ is unable to answer this comment, other than to observe that UDAQ did review and provide a detailed netting analysis review. *See* SPR Reviewer Comment Notes 11-13 (pp. 85-89). Comment is otherwise noted, no changes were made to the AO.

Comment #15: “Holly Refining’s Effort to Circumvent the Consent Decree and Proper Netting Analysis Based on the Propane Flare Must Be rejected.” *The commenter suggests that the removal of the propane flare was not addressed in the ITA and that credit for this removal is not allowed based on Paragraphs 142, 56, and 56a of the Consent Decree. In addition the commenter expresses confusion regarding the “old” and “2010” flare.* (p. 16)

UDAQ Response: UDAQ disagrees with this comment. The ITA does address the closure of the propane pit flare by removing it from the equipment list (previously Tank 137). *See* Response to Comment #4(c). In addition, within the Description of Proposal of the SPR (p. 13) there are references to the removal of propane pit flare (frozen earth propane tank). The elimination of routing of continuous or intermittent refinery fuel gas to the flares was not a requirement of the consent decree, but was a method option:

Paragraph 56 of the 2008 Consent Decree states that “*Flaring Devices and NSPS Applicability. Holly Owns and operates the Flaring Devices identified in Appendix A. Each such Flaring Device listed in appendix D shall be an “affected facility” (as the term is used in NSPS, 40 CFR Part 60) and shall comply with all applicable requirements of 40 CFR 60, Subpart A and J for fuel gas combustion devices used as emergency control devices for quick and safe release of combustible gases by the dates listed in Appendix D.*”

- a. *Holly shall meet the NSPS Subparts A and J for each Flaring Device by using one or any combination of the following methods:*
 - (1) *Design, install, operate and maintain a flare gas recovery system to control continuous or routine combustion in the Flaring Device. Using a flare gas recovery system on a flare obviates the need to continuously monitor emissions as otherwise required by 40 CFR 60.105(a)(4) and 60.6;*
 - (2) *Eliminate the routing of continuous or intermittent, routinely-generated refinery fuel gases to a Flaring Device and operate the Flaring Device such that it only receives process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency Malfunctions; or*
 - (3) *Operate the Flaring Device as a fuel gas combustion device and comply with NSPS monitoring requirements by the use of a CEMS pursuant to 40 CFR 60.104(a)(4) or with a parametric monitoring system approved by EPA as an alternative monitoring system under 40 CFR 60.13(i).*

Holly Refinery is complying with this Consent Decree requirement of paragraph 56 and 56a with method option #3, by complying with NSPS monitoring requirements by use of a CEMS.

Paragraph 142 of the 2008 Consent Decree states that “*Holly shall not generate or use any NO_x, SO_x, PM VOC, or CO emissions reductions that result from any projects conducted or controls utilized to comply with this Consent Decree as netting reductions or emission offset credits in any PSD, major nonattainment and/or minor New Source Review (“NSR”) permit or permit process.*”

SPR Reviewer Comment Note 10 (pp. 85-86) also addresses the replacement of the propane pit flare in 2009, and explains how the replacement flare demonstrated compliance with 40 CFR 60 Subparts A & J with no effect on emissions. Because compliance with 40 CFR 60 Subparts A & J did not affect emissions, reductions from the removal of this propane pit flare are creditable reductions. There is no need to distinguish between emissions from the “old” and “new” propane pit flare as the other modification to the flare was adding air assist and pilot monitoring, and emissions did not change as a result of the modification in 2009. Comment is otherwise noted, no changes were made to the AO.

Comment #16: “Holly’s Permit Application Underestimates the Increase in PM Emission from the New FCCU.” (pp. 16-17)

UDAQ Response: UDAQ disagrees with this comment, as it is factually inaccurate because its accompanying table (The “*Refinery Particulate Matter (PM) Condensable vs. Filterable Emission Rates*”) is not relevant to how UDAQ determined emissions from the FCC Unit 25. In addition the commenter’s statement that FCC Unit 25 emissions were based on the 2008 Consent Decree FCC Unit 4 limitation of 0.5 lbs/1000 lbs of coke is inaccurate. Rather, the PM emissions for FCC Unit 25, the only one being

modified with this project, is based on the BACT determination of 0.3 lbs/1000 lbs of coke. See ITA Condition II.B.2.c and SPR BACT Review Note 14 (p. 27-28).

UDAQ has not set a condensable limit on the FCC Unit 25 in this permitting action because UDAQ is currently developing a SIP for PM_{2.5}. In this SIP, the contribution of Holly Refinery to the valley airshed will be part of that evaluation and condensable limitations will be addressed. See SPR Reviewer Comment 14 (pp. 89-90). Comment is otherwise noted, no changes were made.

Comment #17: “Holly Refining is Violating 40 CFR Part 60, Subpart Ja and the Consent Decree Relative to Its Flares.” *The commenter suggests that because the specific 40 CFR 60 Subpart Ja language is not within the ITA there is no requirement by Holly Refinery to comply with it and that the throughput of the south flares is in excess of this subpart.* (pp. 17-19)

UDAQ Response: UDAQ disagrees with this comment. See Section III: Applicable Federal Requirements (pp. 28-29) of the ITA for this reference of applicability to federal subparts, as well as Response to Comment #15. Regardless of whether the requirements are in the AO, Holly Refinery must comply with all applicable subparts.

The commenter incorrectly states that there is a flare flow rate limitation of 250,000 scfd in 40 CFR 60 Subpart Ja. There is no such restriction in the September 2012 finalized version of 40 CFR Subpart Ja, in 40 CFR 60 Subpart J or within the 2008 Consent Decree. Although the 250,000 scfd limit referenced by the commenter originally appeared in 40 C.F.R. § 60.102a(g)(3), it has subsequently been removed from the Subpart Ja rule (73 Fed. Reg. 78,522, 78,530 (Dec. 22, 2008) and 77 Fed. Reg. 56,422, 56,445 (Sept. 12, 2012) (“[W]e are finalizing our proposed withdrawal of the 250,000 scfd 30-day rolling average flow limit for flares.”). Therefore Holly Refinery is not in violation of any federal limits.

Finally, Holly Refinery must comply with the Consent Decree regardless of the terms and conditions that appear in any approval order issued by UDAQ.

Comment is otherwise noted, no changes were made to the AO.

Comment #18: “The Executive Director Must Determine if Subpart Ja applies to the Other Flares.” (p. 19)

UDAQ Response: The Director has determined that Subpart Ja applies to the new FCCU and fuel gas combustion devices, including flares and process heaters. UDAQ refers the commenter to SPR Reviewer Comment Note 20 (p. 92), which outlines applicability to state and federal requirements, including the reference to the applicability of 40 CFR 60 Subpart Ja to the flares and any new connections made to the flares.

In addition, the North Flare is not being modified as part of the project proposed by Holly Refinery in its NOI, so it is outside the scope of this permit action. Section III of the ITA already states that NSPS Subpart Ja applies to the Woods Cross refinery generally and to both the North and South flares. Although UDAQ had included the applicability of 40 CFR 60 Subpart Ja to the North and South flares in SPR Reviewer Note 20 (pp.92-93), UDAQ requested that Holly Refinery clarify applicability to Subpart A & J to the North flare and the removed Propane Pit Flare, which it did in an August 7, 2013 email to UDAQ.

Comment is otherwise noted, no changes were made to the AO.

Comment #19: “That Holly Refining Has No Title V Permit is a Violation of the Clean Air Act.”
(pp. 19-20)

UDAQ Response: UDAQ disagrees with this comment because this action is not a Title V permitting action but an NSR AO (pre-construction) permitting action that is not dependent upon Title V applicability. UDAQ does agree that Holly Refinery is a major source and is thus bound by R307-415, but the commenter has not referenced regulations that prevent a major source without a Title V permit from obtaining an AO, nor is UDAQ aware of such a regulation.

What is relevant is whether Holly Refinery has met its obligations under R307-401-5, Notice of Intent; and whether the Director can then issue an AO under R307-401-8, Approval Order.

Under the provisions of R307-401-5, a source is required to submit certain information as part of its NOI. Specifically, under R307-401-5(2)(k):

Any other information necessary to determine if the proposed source or modification will be in compliance with Title R307.

Similarly, under R307-401-8(1)(b)(x), the Director will issue an AO if the proposed installation will meet the applicable requirements of:

all other provisions of R307.

As none of the other sub-sections of R307-401-5 or R307-401-8 specifically mention R307-415, 40 CFR 70, Title V, or Operating Permit, these two “catch-all” provisions are the only sections where a source might have any need to demonstrate compliance with R307-415.

In any event, on page 92 of the SPR, UDAQ explains why the absence of a Title V operating permit for Holly Refinery does not negate applicability of all AO conditions and federal requirements that would be referenced in a Title V permit. Holly Refinery is operating under an application shield. The Woods Cross refinery, through a predecessor owner, timely applied for a Title V operating permit on August 21, 1995, as requested by UDAQ. On August 29, 1995, UDAQ acknowledged receipt of the timely application and confirmed that “the...application...has been reviewed and determined to be complete in accordance with UAC R307-15-5(1)(b).” UDAQ’s letter further confirmed that “in accordance with UAC R307-15-7(2)(b), the above site is shielded from enforcement action for operating without a permit until the permit is issued.” The August 29, 1995 letter was included in Holly Refinery’s July 25, 2013 comment (Exhibit H). *See also* 42 U.S.C. § 7661c(d); 40 C.F.R. § 70.7(b). The Title V application is currently pending.

Comment #20: “The BACT Analysis and ITA/Proposed AO Are Inadequate Because They Do Not Result in Emission Limits on Each Subject Emission Unit and Do Not Protect Short Term NAAQS.” *The commenter also suggests that there should be limits on upset flaring operations.* (pp. 20-22)

UDAQ Response: UDAQ disagrees with this comment. The commenter makes two arguments. First, the commenter argues that UDAQ must impose a limit, and second, that the limit must protect the short-term NAAQS. WRA Comment Letter at 20-21.

1. Contrary to the commenter’s assertion, the BACT definition does not absolutely require a limit.

The definition of BACT under R307-401-2(1)(d) states the following (emphasis added):

*"Best available control technology" means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each air contaminant which would be emitted from any proposed stationary source or modification which the director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR parts 60 and 61. **If the director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.***

As the foregoing definition shows, a BACT analysis does not always result in an emission limit. Best work or operational practices may be the result of a BACT determination for any or all pollutants of an emission source.

The commenter seeks support from EPA's New Source Review Workshop Manual (NSR Manual) for the proposition that "[t]o complete the BACT process, the reviewing agency must establish an enforceable emission limit for each subject emission unit at the source and for each pollutant subject to review that is emitted from the source" (NSR Manual at B.56). However, the commenter does not quote the following sentence, which says that "[i]f technological or economic limitations in the application of a measurement methodology to a particular emission unit would make an emissions limit infeasible, a design, equipment, work practice, operation standard, or combination thereof, may be prescribed." *Id.* This is consistent with the BACT definition itself, the starting point for any interpretation of BACT.

UDAQ's interpretation of the BACT definition is primarily found in its Response to Comment #21. To determine BACT applicability, one must read all relevant terms together, which requires consulting more than just the BACT definition in UAC R307-401-2. Although it defines BACT, that definition does not explain when BACT applies. To determine when BACT applies, other terms which are also defined in the administrative code must be applied. Specifically, the BACT definition contains the term modification, which the code defines as "any planned change to in a source which results in a potential increase of emissions," is critical to BACT applicability. UAC R307-101-2. As explained in Response to Comment # 21, all relevant regulatory terms that define emissions need to be taken together and in context. In particular, UDAQ points to the definition of net emissions increase which, in part, requires an increase in actual emissions from a particular physical change or change in the method of operation at a source. Thus, BACT is triggered where an existing unit is subject to both a physical modification and increase in emissions.

Federal BACT is triggered under the same conditions. *See* 40 C.F.R. § 52.21(j)(3) (defining the PSD program's trigger for BACT as applying to each emission unit at which a net emission increase in a pollutant would occur as a result of a physical change or change in the method of operation of the unit); EPA NSR Workshop Manual, p. B.4 ("The BACT requirement applies to each individual new or modified affected emissions unit and pollutant emitting activity at which a net emissions increase would occur.").

The commenter seeks support from *In re Mississippi Lime*, an EPA Environmental Appeals Board (EAB) case that remanded to the Illinois Environmental Protection Agency (IEPA) a PSD permit for failure to provide sufficient justification for not imposing emission limitations for SO₂ and NO_x based on one-hour averages. PSD Appeal 11-01 (E.A.B. Aug. 9, 2011). In *Mississippi Lime*, the EAB remanded the permit to IEPA not simply because it failed to establish a limit, but because IEPA failed to provide “a coherent, well-reasoned explanation of the decision” not to impose such a limit. According to EAB, the standard is the exercise of “considered judgment” in not imposing a limit. *Mississippi Lime* does not raise the question of whether an emission limit is always required, and therefore is of little aid to this discussion because the commenter alleges only that UDAQ did not impose a limit, not that UDAQ failed to exercise considered judgment in choosing an alternative.

2. PSD Increments and Short-Term NAAQS

Protection of the NAAQS and PSD increments is not achieved on an emission unit-by-emission unit basis as suggested by the comment, but rather on a source-by-source basis. Where required, UDAQ addresses the protection of both through air quality modeling as outlined in R307-410. As detailed in R307-410-4, Modeling of Criteria Pollutant Impacts in Attainment Areas, a source with a modification greater than the amounts outlined shall conduct air quality modeling. This permitting action did not result in any increases in PM₁₀, NO_x, or SO₂ above the levels outlined in R307-410-4.

The ultimate purpose of and reason for short-term emissions limits are to ensure that emissions from the modification “will not cause, or contribute to, air pollution in excess of any . . . national ambient air quality standard.” 42 U.S.C. § 7475(a)(3); 40 C.F.R. § 52.21(k)(1); 75 Fed. Reg. 35,520, 35,578 (June 22, 2010) (a source obtaining “a final PSD permit on or after the effective date of the new 1-hour SO₂ NAAQS will be required, as a prerequisite for the PSD permit, to demonstrate that the emissions increases from the new or modified source will not cause or contribute to a violation of that new NAAQS.”). Where it is clear that a source would not cause or contribute to a NAAQS violation, there is no free-standing regulation requiring short-term emissions limits. Holly Refinery has demonstrated that it will not cause or contribute to any violation of the short term NAAQS for SO₂ and NO_x in a number of ways and the UDAQ has significant evidence in the record to demonstrate that it exercised considered judgment in not requiring short-term limits for SO₂ and NO_x.

The commenter relies on EPA guidance quoted in *Mississippi Lime* for the proposition that short-term limits are required in every case. See Memorandum from Anne Marie Wood, Air Quality Policy Division, to EPA Regional Directors, *General Guidance for Implementing the 1-hour SO₂ National Ambient Air Quality Standard in Prevention of Significant Deterioration Permits*, at 6 (Aug. 23, 2010). However, by its own terms, the EPA’s guidance only applies to PSD permits, subject to federal Clean Air Act requirements, and PSD permits are considered on a pollutant-by-pollutant basis. See *id.* (“We are issuing the following guidance to explain and clarify the procedures that may be followed by applicants for Prevention of Significant Deterioration (PSD) permits.”). As Holly Refinery’s NOI demonstrates, its project was only a “major” PSD source for CO and GHG emissions, not for SO₂ or NO_x emissions. Therefore, a PSD permit was only required for Holly’s CO and GHG emissions, not its SO₂ or NO_x emissions, making this guidance inapplicable. See 67 Fed. Reg. 80,186, 80,188 & n.5 (Dec. 31, 2002) (“Applicability of the major NSR program must be determined in advance of construction and is pollutant-specific. In cases involving existing sources, this requires a pollutant-by-pollutant determination of the emissions change, if any, that will result from the physical or operational change. . . . Once a modification is determined to be major, the PSD requirements apply only to those specific pollutants for which there would be a significant net emissions increase.”).

The commenter is correct that there are no limits on the flares. This is because the flares are in place as control device for upset conditions. However, Holly Refinery does have to comply with the requirements

of 40 CFR 60 Subpart Ja. The commenter is incorrect that “upset” conditions are not addressed, *see* ITA Conditions I.2 & I.3 (p. 4).

Further, the Utah PM₁₀ SIP, approved by EPA in 1994, explains why refinery-wide emissions limits rather than individual emission unit limits are appropriate: “The refineries located in Salt Lake and Davis counties had emissions limitations and annual emission estimates assigned in the PM₁₀ SIP based on the following rationale: (a) After reviewing several years’ worth of operational records provided by the five refineries for emission estimates/calculations and production levels, the State agreed with the refinery officials that there was significant variability from day to day and from year to year. Therefore, the refineries were allowed maximum never-to-be exceeded daily limits of PM₁₀, SO₂, NO_x based on the apparent variability. Emissions were capped at these maximum levels from the sources that could have their emissions determined by fuel metering/and calculations and from the other sources that would be stack tested every 1-3 years.” Utah SIP § IX.A.6.c.(2) (1991).

Finally, the ITA contains a number of short-term limits: SO₂ limits of 0.05 tpd for each FCCU and a 0.21 tpd limit for other SO₂ sources, ITA § II.B.6.a; PM₁₀ limits of 0.13 tpd for all combustion sources, ITA § II.B.7.a; and NO_x limits of 2.09 tpd from all sources, ITA § II.B.8.a. There are also three-hour average NO_x limits, and one-hour average CO limits, for a number of heaters and boilers. ITA §§ II.B.8.c, II.B.9.a.

As noted above, Holly Refinery conducted an air quality modeling analysis, which demonstrates that no violation of short-term NAAQS would occur. *See Modeling Analysis Review* at 6 (Oct. 9, 2012).

Comment #21: “BACT Emission Limits Must be Derived and Imposed on Every Emission Unit that Experiences Emission Increases from the Holly Expansion.” (pp. 22-23)

UDAQ Response: UDAQ disagrees with this comment. The commenter states that UDAQ “*did not undertake BACT analysis or apply a BACT emission limitation to the increased emission from each emission unit where an increase in emissions will occur.*” The commenter did not specify which emission unit a BACT analysis was not undertaken. But the commenter also notes that the UDAQ Director appears to “have limited his BACT review to ‘new’ or ‘modified’ emission units.” UDAQ agrees with this last statement as it is consistent with the governing regulations. In its earlier statement, the commenter focuses only on the BACT definition and the requirement that an AO can be issued only after the application of BACT. However, the commenter fails to include the additional definitions that are required to properly address the BACT review issue. As stated in the first sentence of the BACT definition:

‘Best available control technology’ means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each air contaminant which would be emitted from any proposed stationary source or modification which the executive secretary, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

The commenter’s analysis omits the definitions of “stationary source” and “modification,” without which BACT cannot be understood or applied.

As defined in R307-101-2:

“Modification” means any planned change in a source which results in a potential increase of emission.

R307-401-2 defines “stationary source” as:

"Stationary source" means any building, structure, facility, or installation which emits or may emit an air contaminant."

This definition must be further addressed by including the embedded definition of ‘building, structure, facility, or installation’ also from R307-401-2:

"Building, structure, facility, or installation" means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same Major Group (i.e., which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively)."

These additional definitions are important because they must be used in conjunction with the definition of BACT. While there is no definition in the rules for the term ‘potential increase of emission’ as used in the definition of modification, several reasonable inferences can be made. R307-101-2 defines ‘potential to emit,’ ‘net emissions increase,’ and ‘emission.’

"Potential to Emit" means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

"Net Emissions Increase" means the amount by which the sum of the following exceeds zero:

(1) any increase in actual emissions from a particular physical change or change in method of operation at a source; and

(2) any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable. For purposes of determining a "net emissions increase":

(a) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date five years before construction on the particular change commences; and the date that the increase from the particular change occurs.

(b) An increase or decrease in actual emissions is creditable only if it has not been relied on in issuing a prior approval for the source which approval is in effect when the increase in actual emissions for the particular change occurs.

(c) An increase or decrease in actual emission of sulfur dioxide, nitrogen oxides or particulate matter which occurs before an applicable minor source baseline date is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available. With respect to particulate matter, only PM₁₀ emissions will be used to evaluate this increase or decrease.

(d) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.

(e) A decrease in actual emissions is creditable only to the extent that:

(i) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;

(ii) It is enforceable at and after the time that actual construction on the particular change begins; and

(iii) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.

(iv) It has not been relied on in issuing any permit under R307-401 nor has it been relied on in demonstrating attainment or reasonable further progress.

(f) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

"Emission" means the act of discharge into the atmosphere of an air contaminant or an effluent which contains or may contain an air contaminant; or the effluent so discharged into the atmosphere.

Taking these definitions together, BACT applies only in those cases where a modification has taken place, meaning only when a planned increase in potential emissions from the entire source occurs. Other definitions for 'modification' exist in various NSPSs or NESHAPs, and these definitions will sometimes address only specific affected units rather than the source taken as a whole. These definitions also routinely address only units which have been physically modified. Therefore, UDAQ reviewed Holly Refinery's BACT submittal in the same conservative light as Holly Refinery, i.e., BACT is required for new emission units and those existing units where both a physical modification and an increase in emissions takes place. UDAQ has incorporated EPA's definition of BACT as found in 40 CFR 51.21(b)(12) by reference in R307-405-3(1). For a listing of equipment that BACT applied and the determinations made, see SPR BACT Review Notes 2-35 (pp. 16-45).

The PSD regulations require a BACT analysis to be performed on units that experience a net emissions increase "as a result of a physical change or change in the method of operation in the unit." 40 C.F.R. § 52.21(j)(3) (emphasis added); see also 40 C.F.R. § 52.21(b)(7) (an "emissions unit" is defined as "any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant"). Indeed, the permitting requirements under state law similarly only apply to "any person intending to ... (b) make modifications or relocate an existing installation which will or might reasonably be expected to increase the amount or change the effect of or the character of air contaminates discharged." Because neither the North Flare nor the SRU will undergo any physical change or experience an increase in emissions as a result of Holly Refinery's proposed project, these "emission units" are not subject to the BACT analysis requirements in the PSD rules.

Comment is otherwise noted, no changes were made to the AO.

Comment #22: "It is Impossible to Verify the Facility's SO2 Potential to Emit." *The commenter is suggesting it is incorrect to base sulfur emissions on H₂S.* (p.23)

UDAQ Response: UDAQ disagrees with this comment. As an initial matter, this comment takes issue with the contents of the NOI, not the UDAQ's review that lead to the ITA, and states that Holly Refining "must revise its permit application to substantiate and verify the projected sulfur dioxide (SO₂) emission increase from heaters and boilers." WRA Comment Letter at 23. However, the document representing the UDAQ's proposed conditions is the ITA. Claimed deficiencies in the application are only relevant if they affect the agency's conclusions. Accordingly, this comment is insufficiently specific, as it focuses only on the permit application and does not refer at all to the ITA. If the commenter is unable to tie the supposed application deficiencies to the proposed approval order, it has not shown how those alleged deficiencies have any relevance.

In any event, the majority of sulfur content of fuel gas treated through an SRU process will be H₂S with the potential of some additional smaller percentage of sulfur, which EPA estimates could be up to 8% higher. Holly Refinery based their sulfur content in the fuel gas on both the federal (40 CFR 60 Subpart Ja) and state annual limitation of 162 ppm, a more conservative estimate than the 7 day rolling limitation of 60 ppm. This methodology is appropriate to estimate SO₂ annual emission potentials because it is based on a maximum allowable which a source is not going to operate at on a continuous basis. Although this methodology might be underestimating by as much as 8% periodically, over the course of a year the 162 ppm is a conservative sulfur emission estimate.

UDAQ verified potential to emit emissions provided in Appendices B & C of the NOI by first using engineering judgment to inspect the values to see that they were reasonable. The next step was to review assumptions the applicant relied upon in estimating the emissions and verify the assumptions were reasonable. This included a review of emission factors. *See* SPR Reviewer Comments 3 & 4 (p.78-81) for the discussion on emission calculation methodology, which includes emission factors. Finally, UDAQ reviewed the emission calculations themselves to ensure the proper assumptions were applied to the emission equations and whether the emission estimations were calculated correctly. The commenter does not address any of these aspects of the agency's review.

Comment is otherwise noted, no changes were made to the AO.

Comment #23: "The Modeling that Purports to Support the ITA/Proposed AO is Inadequate." *The commenter is suggesting that PM_{2.5} should have been modeled.* (p.23-24)

UDAQ Response: UDAQ disagrees with this comment. Holly Refinery's October 9, 2012 memo *Modeling Analysis for the Holly Refining and Marketing Company Refinery Location in Woods Cross, Utah*, was based on a request by UDAQ for Holly Refinery to submit an initial impact analysis based on the July 2012 NOI. This analysis showed no impact on the NAAQS CO, PM₁₀, NO₂, or SO₂. Since this modeling was completed, UDAQ reduced allowable emissions, which further negated the need for modeling. Because increases in NO_x, SO₂, PM₁₀, and PM_{2.5} are not significant and did not trigger PSD review, a PSD increment analysis, a plume blight analysis, or a soils and vegetation and regional haze analysis were not required. Although the modeling requirements of R307-410-4 were not triggered, the initial modeling impact analysis showed no impact on the NAAQS and therefore no short term emission limits were necessary.

Note: The commenter's assumption that an emission limit is established prior to the completion of a modeling analysis is erroneous. Rather, the emission limit is established pursuant to the analysis of BACT, modeling, and a host of other permitting factors.

Comment is otherwise noted, no changes were made to the AO.

Comment #24: “The Record Does Not Support the Executive Secretary’s BACT Determination.”
(pp. 24-25)

UDAQ Response: The commenter is vague in its purported specifics within the BACT analysis. However, we will attempt to address them as best we can and respond individually to the commenter’s eight points:

- 1) In regards to emission limits, *see* Response to Comment #20.
- 2) In regards to protecting the NAAQS, *see* Response to Comment #20.
- 3) BACT analyses provided by UDAQ are meant as a summary of UDAQ’s findings and not meant as primary research, which under R307-401-5(2)(d) is the responsibility of the permit applicant. UDAQ reviewed Holly Refinery’s proposed control technology and determined that it met BACT.
- 4) It is unclear what the commenter means. After control technology is applied, this future case is unknown and UDAQ assumed that “projected actual emissions” equal potential emissions unless otherwise stated (40 CFR 52.21(b)(41)(ii)(d)). This is inherent in UDAQ’s acceptance of values noted in the NOIs. As for actual values prior to this modification, these were addressed in the PSD and Major NSR netting analysis. *See* SPR Reviewer Comments 8-12 (pp. 83-87).
- 5) Cost estimates are necessary when eliminating technology based on economics and this was done for the project based on the cost estimate provided. UDAQ reviewed cost estimates and determined the costs were reasonable by comparing values with the methodology outlined in EPA’s Draft New Source Review Workshop manual (1990) and guidance for calculating amortized capital costs.
- 6) The ITA already requires Holly Refinery to meet 40 CFR 60 Subpart Ja. Subpart Ja only applies to specific emission units. For those emission units there are specific emission limits to be met for a specific pollutant. The limits do not represent BACT, but instead are emission limits that must be met. Even if BACT were determined to be “no additional controls,” Holly Refinery would still be required to meet NSPS or NESHAP requirements.
- 7) UDAQ is unable to respond to this particular comment because the commenter does not specifically state what information UDAQ is in conflict with.
- 8) That the BACT determination “is not BACT” is a general statement that has no particular basis in fact. UDAQ is unable to respond to this directly. *See* responses 1-7 above.

Comment is otherwise noted, no changes were made to the AO.

Comment #25: “The BACT for the South Fare is Inadequate.” *The commenter is suggesting that the analysis failed to consider fuel savings secured by using the recovered flare gas and that it treats each cost analysis for NO_x, CO, and VOC separately.* (p. 25).

UDAQ Response: UDAQ disagrees with this comment. *See* SPR BACT Review Note 26 (p. 37-38) for a discussion of the March 21, 2013 Flare Gas System Recovery Cost Effectiveness analysis Holly Refinery submitted to UDAQ. UDAQ also notes that the commenter refers to an Exhibit 11. However, an Exhibit 11 was not provided by the commenter nor does it appear in the commenter’s exhibit list.

UDAQ also disagrees that a cost analysis considering combined reductions in NO_x, CO and VOC is appropriate. A BACT analysis is conducted on a pollutant-by-pollutant basis. Holly Refinery did submit a BACT analysis on a pollutant-by-pollutant basis, *see* July 2012 NOI Section 5, and UDAQ reviewed this analysis. *See* SPR BACT Review Notes 1-35 (pp. 14-45).

The comment is otherwise noted, no changes were made to the AO.

Comment #26: “The Proposed AO Lacks Adequate Enforceability: The NSR Manual provides that a PSD permit must, among other things, provide for adequate reporting and recordkeeping so that the permitting agency can determine the compliance status of the source. However, many of the stack test set forth in the AO are to be performed once every five years, and other every three years. Testing every three or five years is not frequent enough to satisfy the requirements of the Act and the regulations for practical enforceability and periodic testing and inspection of stationary sources. See, e.g., Sections 110(a)(2)(A), (C), and (F) of the ACT; 40 CFR 51.210, 51,212.” (pp. 25-26)

UDAQ Response: UDAQ disagrees with this comment. The commenter states that stack testing requirements in the AO have frequency requirements of every five years. The ITA does not include any stack testing requirement with a frequency of less than every three years. In any event, despite its reference to “practical enforceability,” the commenter provides no definition of that term, nor does it explain how even every five years would be inadequate.

The commenter references 40 CFR 51.21, 40 CFR 51.212, CAA 110(a)(2)(A), (C), & (F), which are requirements for states to include in their Implementation Plans for protecting the NAAQS. UDAQ’s EPA-approved NSR permitting program incorporates these requirements. Nowhere in 40 CFR 51.2, 40 CFR 51.212, or CAA 110(a)(2)(A), (C), & (F) is a minimum stack testing frequency established, and the comment does not indicate anything to the contrary. Finally, the NSR Manual is a draft and used by UDAQ as a guidance document, but is not a final rule and does not impose any requirements on the permitting process. Comment is otherwise noted, no changes were made to the AO.

Comment #27: “The Proposed AO Lacks Throughput and Production Limits” on the FCCU Unit 25. (p. 26)

UDAQ Response: UDAQ disagrees with this comment. There is no requirement in the relevant regulations that the FCCU be subject to a throughput limit. The FCC Unit 25 is subject to numerous other emissions limitations. UDAQ has listed the capacity of FCC Unit 25 as the basis for emission calculations in the ITA Section II.A.40 (p. 7) as 8,500 barrels per day. Emissions from the FCC Unit 25 result from both the feed heater 25H1 and the 25FCC Scrubber which are based on 8,760 hours per year. See the July 2012 NOI Appendix A for emission calculations. Emissions from the FCC Unit 25 are limited based on these calculations; See ITA Section II.B.2.a through II.B.2.c (pp. 19-20). An increase in throughput of this unit that results in an emission increase constitutes a modification and would trigger the requirements of R307-401-5. A throughput limitation would be redundant as both the 25H1 and 25FCC Scrubber emissions are based on maximum capacity.

Comment is otherwise noted, no changes were made to the AO.

Comment #28: “The Proposed AO Impermissibly Lacks a PM Limit on the FCCU and Lacks and [sic] PM2.5 Emission Limit.” *The commenter specifically states that FCCU Unit lacks a PM limit and that there are no PM2.5 limits in the permit for any unit.* (p. 26)

UDAQ Response: The definition of “modification” in R307-101-2 “means any planned change in a source which results in a potential increase of emissions”. Neither the FCC Unit 4 or its wet gas scrubber (4V82 Scrubber) are being altered, nor are emissions increasing for these units. Therefore, FCC Unit 4 and 4V82 Scrubber are not being modified and do not trigger the requirements of R307-401-5. However, pursuant to Section II.B.2.C (p. 20) of the 2008 EPA Consent Decree, there is a PM₁₀ emission limit on the FCC Unit 4 wet gas scrubber (4V82 FCC Scrubber) of 0.5 lb/100 lb coke burned.

The Holly Refinery Consent Decree is a settlement between Holly Refinery and the federal government. Any limitations imposed by the consent decree are the result of negotiations between the parties and not necessarily included or required by the NSR process.

In regards to a PM_{2.5} limitation, refer to Response to Comment #16. Comment is otherwise noted, no changes were made to the AO.

Comment #29: “The ITA/Proposed AO Does Not Comply with the Federally Enforceable PM₁₀ SIP.” (pp. 26-27)

UDAQ Response: UDAQ assumes the commenter is referring to the 1994 PM₁₀ SIP which is federally enforceable as the last EPA-approved Salt Lake County PM₁₀ SIP, while the 2005 PM₁₀ maintenance plan is enforceable as state law. Both the 1994 and the 2005 SIPs are enforceable regardless of whether these requirements appear within the AO.

While these SIP cap limits are still enforceable and Holly Refinery must comply with them, UDAQ proposed to include all emission points within the NO_x, PM₁₀, and SO₂ AO caps which were previously excluded as non-combustion emission sources. *See* Conditions II.B.6.a (pp. 68-69), II.B.7.a (p. 70), and II.B.8.a (p. 71) where “all sources” are included in the caps. Based on these all-inclusive AO caps, there is no requirement to establish limitations on individual emission sources. *See* SPR Reviewer Comments 14 & 15 (pp. 89-90) which outlines the proposed changes (reductions) for these AO emission caps.

Both the 1994 and 2005 PM₁₀ SIPs established daily PM₁₀ limits of 0.444 tons per day for all combustion sources, including the Sulfur Recovery Unit Tail Gas Incinerator. The AO cap proposes to reduce the cap to 0.13 tons per day (significantly lower than the SIP cap of 0.444 tons per day) for all combustion sources and include a new annual cap of 100.3 tons per year for all other (non-combustion) sources. Holly Refinery must comply with the 1994 PM₁₀ SIP limit of 0.021 tons per day of PM₁₀ for the sources listed in Section IX, Part H.2.B.4.B of the 1994 PM₁₀ SIP, whether this limit is included in the AO or not. UDAQ did not incorporate this limit in the AO, in part because the equipment listed in Section IX, Part H.2.B.4.B of the 1994 SIP is not current with the equipment listed in the proposed ITA. Comment is otherwise noted, no changes were made to the AO.

Comment #30: “There is No Adequate Basis in the Record for the ITA as the Record Does not Reflect Independent Analysis of the Assertions and Calculations Made in the NOI.” (pp. 26-27)

UDAQ Response: UDAQ disagrees with this general comment. The commenter seems to imply that because UDAQ agrees with an applicant’s supplied “*data, claims and analysis*” that UDAQ therefore must not have independently reviewed the information. In any event, UDAQ reviewed the NOI and raised numerous questions and requests for additional information as documented in the Permit History section of the SPR document. These requests for information are also included in the public record. In addition, *see* SPR BACT Review Notes 1-35 (pp. 14-45) and Reviewer Notes 1-24 (pp. 77-95) for references to the basis for UDAQ’s decisions regarding the project.

Although the commenter claims that “the record is almost devoid of independent analysis of the factors that by law must be considered and incorporated into the [Director’s] permitting decision” and that the Director’s “entire review of the Holly Expansion is limited to a few pages,” the commenter identifies not even one of the requirements that it alleges the agency did not consider. Nor does it identify the “few pages” (of the 95-page SPR) that it believes are merely an incorporation of Holly Refinery’s NOI. By failing to identify specific errors, the commenter has no foundation for claiming that “the record lacks a basis for the state’s decision.”

The comments are otherwise noted, no changes were made to the AO.

Comment #31: “There is Insufficient Information and Analysis in the Record to Support the ITA.”
(p. 27)

UDAQ Response: This comment repeats information included as comment #30 above. In fact, it appears to be a simple restatement of the same bulleted list. Therefore, please *see* Response to Comment #30. Comment is otherwise noted, no changes were made to the AO.

Comment #32: “There is no Examination of the Feedstock in the Record, although Such Analysis is Necessary to Estimate Projected Emissions and otherwise Evaluate the Legality of the Permit.” (p. 27)

UDAQ Response: UDAQ disagrees with this comment. There is no requirement to conduct an “*examination of the feedstock.*” R307-401-5(2) identifies the information to be submitted with the NOI. Those requirements include the need to identify the nature, procedures for handling and quantities of raw materials. Refineries process multiple different crudes and crude blends. Crude from each different oil well can have a different chemical profile, and even the crude from a single well can differ from day to day. While it is true that different feedstocks can result in slightly different emission profiles, attempting to address every possible specific chemical profile would be impossible.

UDAQ must by necessity rely on estimates and averages as part of the reviewing process. The majority of the emissions generated by the refinery come not from the processed crude directly, but rather from the combustion of gaseous fuels used to heat those process units, and the emissions resulting from this combustion are well documented, understood and verifiable (see several sections of AP-42). The remaining emissions, such as those from storage tank off-gassing, piping leaks and equipment losses, are estimated. These estimates are standardized by both the industry as well as EPA, using such emission calculation programs as Tanks (version 4.09d was used by Holly Refinery, which is the most current version). The non-fugitive emissions are addressed by the specific requirements found in Section II.B of the ITA (pp. 18-28). Comment is otherwise noted, no changes were made to the AO.

Numerous comments were received from Alexander J. Sagady & Associates as authorized by Utah Physicians for a Healthy Environment (UPHE) & WRA. UDAQ has not repeated the entire text of the letter and attachments in this response to comments, although these documents can be found in full in the file for this permitting action (project N101230041-13). In general, UDAQ has attempted to include the full text of any specific comment, although particularly long or compound comments may have been paraphrased or split for ease of reading and brevity concerns. Where this has occurred, UDAQ includes a notation. The comments from UPHE & WRA are reflected below.

Comment #33: “Applicant’s ‘Notice of Intent’ Submittal to UDEQ-DAQ is Incomplete for its Failure to Address Hydrogen Sulfide, Total Reduced Sulfur and Sulfuric Acid Aerosol [sic.] as Required NSR-Regulated Pollutants in the Application-Required New Source Review (NSR) Analysis.” (pp. 1-2)

UDAQ Response: This comment, like many others submitted by this commenter, takes issue with the contents of the NOI and fails to address any aspect of UDAQ’s review of the NOI. As such, it does not tie its concerns to the conditions proposed in the ITA.

In any event, H₂S and TRS are present in the fuel gas. The SRU, the primary control device for sulfur removal, effectively treats these components in the fuel gas. The only viable treatment option for residual H₂S or TRS present in the fuel gas, where both are converted to SO₂, is combustion. This control has been

reviewed in the BACT analysis (pp. 14-45 of the SPR). See SPR Reviewer Comment #11 (p. 86) which discusses why H₂S and TRS were not included in the netting analysis.

H₂SO₄ occurs when H₂S or TRS comes into contact with water, which only occurs at the effluent of the wet gas scrubbers, the primary control for PM and SO₂ emissions. At the effluent of the wet gas scrubber, this SO₂ emission is a secondary pollutant which is controlled in the same manner the sulfur was controlled in the first place, with the SRU and wet gas scrubbers (BACT Review Notes 14-16, p. 27-30 of the SPR).

Additionally, Holly Refinery assumed that H₂S from refinery heaters was about 70% of the EPA NEI factors used to calculate PM_{2.5}, so the H₂S from combustion units would be about 0.7 tpy. Holly Refinery assumed that 3% of its SO₂ emissions was in the form of H₂SO₄, meaning that total H₂SO₄ emissions would be about 1.8 tpy. Although there are no emission factors for TRS, because H₂S is a component of TRS and the other components of TRS are generally less than H₂S, total TRS would be about 1 tpy. Therefore, emissions of these pollutants do not reach significance levels. See 40 C.F.R. § 52.21(b)(23)(i) (the significance level for H₂SO₄ is 7 tpy, for H₂S is 10 tpy, and for TRS is 10 tpy).

Comment is otherwise noted, no changes were made to the AO.

Comment #34: “Neither the Applicant Nor UDEQ-DAQ Have Addressed Particulate Matter (PM) Emissions During Emission Characterization, Project-Related Emission Increases, Netting and Net Increase Calculations and in the Required BACT Determinations; the Refinery Onsite Road Network is an Emission Unit Not Listed in the Draft AO Approved Installation and Applicant Plans to Increase Site-Road-Related PM, PM-10 and & PM-2.5 Emissions Through a Physical Change or Change in the Method of Operation of this Emission Unit.” (pp. 3-4)

UDAQ Response: UDAQ disagrees with this comment. Here, the commenter takes issue with the NOI, but not UDAQ’s review or the ITA.

Specifically, the commenter claims that the road network is a PM, PM₁₀ and PM_{2.5} “emitting source,” which will undergo a physical change and a change in the method of operation “in a manner that will increase site emissions through its plans to increase truck deliveries of waxy crudes.” Next, the commenter says that this constitutes an “emission unit change.” However, the commenter never establishes that the road network is an “emission unit.” The road network is not an emission unit, as 40 C.F.R. § 52.21(b)(7) defines an “emission unit” to be “any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant.” See also UAC R307-101-2 and R307-401-2. A “stationary source” is “any building, structure, facility, or installation which emits or may mean an air contaminant.” UAC R307-401-2. Commenter makes no attempt to show how the road network is an “emission unit” that is a part of a “stationary source.” In fact, the comment does not even specifically establish where it thinks these PM emissions come from. From the totality of the comment, it appears that the commenter is concerned about dust from vehicles traveling on the roads at the Holly Refinery.

The commenter also claims that the failure to consider the road network as an emission unit means that the Holly Refinery netting analysis is incomplete. However, as explained, the road network does not qualify as an emission unit. In any event, PM emissions from combustion sources have been addressed and UDAQ refers the commenter to SPR Reviewer Comment Note 3 (pp. 78-79). On site road networks are controlled by using paved roads and those emissions are not changing as a result of this project. The loading area is the only place that might experience additional truck deliveries of the waxy crude. This loading area has a designated entrance into the refinery (crude delivery trucks are not routed through the refinery) with a paved road that at maximum is ¼ mile (round trip). The only additional controls for paved roads are to enforce a speed limit and require sweeping, both of which Holly Refinery is already

doing. However, UDAQ has included the following conditions to enforce both the speed limit and quarterly sweeping of the in-plant paved roads.

Speed Limit:

The vehicle speed on in-plant roads shall not exceed 15 miles per hour. The vehicle speed limit on in-plant roads shall be posted and large enough to be read by the drivers.

Sweeping:

The in-plant access road shall be paved, and shall be periodically swept, or sprayed clean as dry conditions warrant or as determined necessary by the Director. Records of cleaning paved roads shall be kept for all periods the plant is in operation.

Records of quarter long inclement weather that prevent sweeping of in-plant access roads shall be kept for all periods the plant is in operation. These records shall include dates and conditions that prevented sweeping, including temperatures and precipitation records.

Finally, the commenter claims that there is a problem “endemic to the UDEQ-DAQ air quality permit issuance program,” yet provides not even one example outside the Holly Refinery permit review. As explained in UDAQ’s response to this comment, UDAQ has not ignored the regulation of any pollutants, but rather has shown the central problems with the commenters’ analysis. This hardly resembles the reckless allegation of “an act of UDEQ-DAQ scientific misconduct” referred to by the commenter, especially when the commenter never ties its concern to any proposed condition of the ITA or addresses any aspect of UDAQ’s review.

The comment is otherwise noted. No changes were made to the ITA.

Comment #35: “Applicant’s Consideration of Baseline Actual Emissions for Purposes of Affected Unit Emission Increase and Net Emission Increase Determination in Applicant’s Section 3 Emissions and Netting Analysis [sic.] Review Failed to Consider Increase Flare-Related SO₂ Emissions Caused by Refinery Wide Expansion of Process Units and Failed to Address SO₂ Flared Emission Contributions to Site-Wide SO₂ Emissions.” (pp. 4-5)

UDAQ Response: UDAQ disagrees with this comment. The commenter states that “[t]he failure to properly consider flare-related SO₂ emissions that Applicant has admitted in the significant emissions increase and the significant net emission increase throughout the netting analysis is scientific misconduct on the part of the Applicant to properly carry out such analysis in the manner required.”

There are several problems with this comment. First, the comment focuses exclusively on the NOI. However, the document representing the UDAQ’s proposed conditions is the ITA. This comment is insufficiently specific, as it focuses only on the permit application and does not refer at all to the ITA or how UDAQ conducted its review. If the commenter is unable to tie the supposed application deficiencies to the proposed approval order, it has not shown how those alleged deficiencies have any relevance.

As to the substance of the comment, it appears that the commenter is concerned about upset/malfunction emissions not being included in the netting analysis. However, startup and shutdown emissions were included in the analysis (*see* SPR Reviewer Comment 5, pp. 81-82). All limits of the permit apply at all times, which include periods of startup, shutdown and malfunction. The ITA contains no exclusion for these events.

The commenter incorrectly cites 40 CFR 52.21(b)(48)(i)(a), which refers to existing electric utility steam generator units, which is incorrect. The new units at issue in this permitting action are not electric utility steam generator units. The relevant requirement is 40 CFR 52.21(b)(48)(iii), which states that “*for a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.*” There is no requirement for start up, shut down, or malfunction emissions to be included, although UDAQ did include start up and shut down emissions as a conservative measure. As noted in SPR Reviewer Comment #5 (p. 81-82), upset conditions do not include normal process flow combustion at the flares and there is no reason to assume that upset condition emissions will be any greater after the project is complete than before the project. The ITA properly accounted for all appropriate normal process flow emissions. Comment is otherwise noted, no changes were made to the AO.

Comment #36: “Table 3-4 and 3-5 NO₂ reference.” (p. 6)

UDAQ Response: Based on the emission calculations provided in Appendices A, B, & C of the July 2012 NOI, Tables 3-4 and 3-5 do address NO_x emissions, not just NO₂ emissions. The reference to NO₂ is simply a typo. Comment is otherwise noted, no changes were made to the AO.

Comment #37: “Facility Configuration and Operation in Compliance with Applicant’s Notice of Intent.” *Commenter suggests that the ITA (and subsequent AO) should enforce stack heights.* (p. 6)

UDAQ Response: UDAQ disagrees with this comment. UAC R307-410-6(3) requires the source to provide a demonstration that the source stack heights meet good engineering practices, which can include minimal stack heights established in the modeling analysis. *See Modeling Analysis for the Holly Refining and Marketing Company Refinery Location in Woods Cross, Utah*, October 9, 2012. As that memorandum states, “no additional conditions are needed in the AO to limit the air quality impact”. Commenter claims that “[n]o provision of the Draft Approval Order provides that the Applicant shall construct and operate the new and modified refinery process equipment in a manner that is consistent with Applicant’s Notice of Intent.” (p.6). This comment demonstrates a fundamental misunderstanding of the roles of the applicant and the UDAQ, as well as the permitting process itself. First, the commenter cites no legal basis for such a requirement. Second, if UDAQ issues an approval order, that order is the result of the agency’s review of the totality of the record, which includes the applicant’s NOI, any supplemental submissions, and the UDAQ’s source plan review. Holly Refinery must comply with all terms and conditions of the approval order as issued. Therefore, it makes little sense for the AO to require that Holly Refinery comply with its NOI, which is a preliminary document that initiates the review process.

Comment #38: “Applicant’s Notice of Intent as Revised in July 2012 Contains Significant Errors on the Matter of Specific Start of Contemporaneous Period.” (pp. 6-7)

UDAQ Response: UDAQ disagrees with this comment. The commenter claims that in its NOI, Holly Refinery erred in determining the start of the contemporaneous period. Again, the commenter bases his remarks on supposed deficiencies in the permit application rather than the ITA, which contains the proposed conditions on which Holly Refinery would operate if it receives an approval order. The comment makes no reference to the ITA at all, but instead theorizes that since it believes that the NOI contains a mistaken application of the regulation for determining the beginning of the contemporaneous period, UDAQ may not rely on such a representation. However, since the comment makes no effort to actually tie the alleged error to the ITA, the commenter stops short of actually finding an error with UDAQ’s review that could result in an erroneous condition in an eventual approval order. Accordingly, the commenter has failed to tie its complaint to any aspect of UDAQ’s review.

In any event, according to R307-101-2, the definition of *Net Emission Increase*, the contemporaneous period is set at five years prior to the date of commencement of construction (the date of the AO is the earliest date by which Holly Refinery could commence construction). In this case, if the AO is finalized in November 2013, the contemporaneous period would begin five years earlier, in October 2008. This period would still incorporate all reductions in the SPR Reviewer Notes 6, 8, 9, & 10 (pp. 82-86) resulting in approximately the same netting analysis. The first reduction relied on in the netting analysis occurred in 2009 and would not fall out of the contemporaneous period until 2014. Therefore, the netting analysis would not change until sometime in 2014. Comment is otherwise noted, no changes were made to the AO.

Comment #39: “UDEQ-DAQ Must Deny Applicant’s Notice of Intent in Light of Applicant’s Insistence that Emission Increases and Decreases Taking Place as a Result of the June 8, 2007 “Modernization Project” are to be Impermissibly Considered as Taking Place as of the Time of the June 8, 2007 Approval Order Issuance Date and Not at the Time of Commencement of the Operations of Authorized Equipment.” (pp. 7-8)

UDAQ Response: UDAQ disagrees with this comment. The commenter claims that in its NOI, Holly Refinery was required to “find, consider, and include all contemporaneous emission increases and decreases under 40 CFR 52.21(b)(3)(i)(b) in the required determination of the amount of net emission increase and to determine whether such a net emission increase is significant under 40 CFR 52.21(b)(23)(i).”

Again, the commenter bases its remarks on supposed deficiencies in the permit application. The application is not the ITA, which contains the proposed conditions on which Holly Refinery would operate if it receives an AO. The comment makes no reference to the ITA at all, but instead theorizes that since it believes that the NOI contains a mistaken application of the regulation for determining the beginning of the contemporaneous period, UDAQ may not rely on such a representation. However, the commenter has the ITA before it, but makes no effort to actually tie the alleged error in the NOI to the ITA. Therefore, the commenter does not identify how this supposed deficiency has any bearing on the agency’s proposal that could result in an erroneous condition in an eventual approval order.

Having failed to point out how this supposed deficiency has affected the proposed permit conditions; the commenter has not placed the agency on notice as to what aspect of its work is likewise assumed to be deficient or indicate the relevance of the NOI’s alleged errors to the ITA. *See* U.C.A. § 19-1-301.5(4); UAC R305-7-202.

With respect to the list requested by the commenter, all units and related modifications and emissions are addressed in the SPR. *See* SPR Reviewer Comment Notes 6 & 8 (p. 82 & pp. 83-84) which addressed the June 8, 2007 “Modernization Project” and incorporation of emissions from equipment installed as a result of this permitting action.

The comment is otherwise noted, no changes were made to the AO.

Comment #40: “This provision means that Applicant’s Assertion that emission increases resulting from the June 8, 2007 AO be considered as taking place on the date of the AO adoption is erroneous regulatory determination.” (p. 8)

UDAQ Response: UDAQ disagrees with this comment; *see* Response to Comment #39. Comment is otherwise noted, no changes were made to the AO.

Comment #41: “All of Applicant’s Notice of Intent Submittals are Incomplete Because UDEQ-DAQ Failed to Require Applicant to Properly Include Process Flow Diagrams and UDEQ-DAQ New Source Review Forms Necessary for Proper Procedure in a Manner Prejudicial to Public Comment and Participation.” (pp. 9-10)

UDAQ Response: UDAQ disagrees with this comment.

This comment takes issue with the permit application rather than UDAQ’s review of the application. By failing to explain how the alleged deficiency in the application has any bearing on the proposed conditions in the ITA, the commenter has not indicated how such an alleged deficiency is of any consequence..

In addition, the commenter cites no regulatory requirement that process flow diagrams be submitted with the NOI. UDAQ determined the Holly Refinery NOI to be complete, as noted in SPR Reviewer Comment Notes 1 & 2 (pp. 77-78). In any event, the NOI does contain process flow diagrams. Section 2.0 of the July 2012 contained process flow diagrams, which were sufficient for UDAQ’s review of the project.

Just as it cites no requirement for the inclusion of process flow diagrams, the commenter cites no requirement for the inclusion of NSR forms within an NOI, nor is UDAQ aware of such a requirement. UAC R307-401-5: Notice of Intent, lists the following NOI requirements:

- (1) Except as provided in R307-401-9 through R307-401-17, any person subject to R307-401 shall submit a notice of intent to the director and receive an approval order prior to initiation of construction, modification or relocation. The notice of intent shall be in a format specified by the director.*
- (2) The notice of intent shall include the following information:*
 - (a) A description of the nature of the processes involved; the nature, procedures for handling and quantities of raw materials; the type and quantity of fuels employed; and the nature and quantity of finished product.*
 - (b) Expected composition and physical characteristics of effluent stream both before and after treatment by any control apparatus, including emission rates, volume, temperature, air contaminant types, and concentration of air contaminants.*
 - (c) Size, type and performance characteristics of any control apparatus.*
 - (d) An analysis of best available control technology for the proposed source or modification. When determining best available control technology for a new or modified source in an ozone nonattainment or maintenance area that will emit volatile organic compounds or nitrogen oxides, the owner or operator of the source shall consider EPA Control Technique Guidance (CTG) documents and Alternative Control Technique documents that are applicable to the source. Best available control technology shall be at least as stringent as any published CTG that is applicable to the source.*
 - (e) Location and elevation of the emission point and other factors relating to dispersion and diffusion of the air contaminant in relation to nearby structures and window openings, and other information necessary to appraise the possible effects of the effluent.*
 - (f) The location of planned sampling points and the tests of the completed installation to be made by the owner or operator when necessary to ascertain compliance.*
 - (g) The typical operating schedule.*
 - (h) A schedule for construction.*
 - (i) Any plans, specifications and related information that are in final form at the time of submission of notice of intent.*
 - (j) Any additional information required by:*
 - (i) R307-403, Permits: New and Modified Sources in Nonattainment Areas and Maintenance Areas;*
 - (ii) R307-405, Permits: Major Sources in Attainment or Unclassified Areas (PSD);*

- (iii) R307-406, *Visibility*;
 - (iv) R307-410, *Emissions Impact Analysis*;
 - (v) R307-420, *Permits: Ozone Offset Requirements in Davis and Salt Lake Counties*; or
 - (vi) R307-421, *Permits: PM₁₀ Offset Requirements in Salt Lake County and Utah County*.
- (k) Any other information necessary to determine if the proposed source or modification will be in compliance with Title R307.

UDAQ provides forms as an aid for the permit applicant in completing its NOI, but does not require the applicant to use them. The only requirement is that the NOI include all required information required by UAC R307-401-5. Comment is otherwise noted, no changes were made to the AO.

Comment #42: “Applicant Failed to Properly Evaluate and Characterize Contemporaneous Emission Increases Arising at Applicant’s Non-Modified, Existing Process and Emission Units as a Result of Increased Process Utilization Rates Caused by Facility Process Expansion and Other Factors Arising in Applicant’s Modernization Project.” (pp. 10-11)

UDAQ Response: UDAQ disagrees with this comment. This comment focuses only on the NOI, claiming that Holly Refinery did not “properly list and determine all contemporaneous emission increases at non-modified process and emission units at non-modified process and emissions units means Applicant’s submittal is non-approvable because of failure to comply with 40 C.F.R. 52.21(b)(3)(i)(b).” However, commenter provides no authority for the proposition that UDAQ may not issue an AO if there is an error or omission in the NOI.

In any event, the commenter is mistaken. The methodology for performing a netting analysis is found in 40 CFR 52.21. UDAQ performed a netting analysis as explained in the SPR Reviewer Notes 6 through 12 (pp. 82-87), using information provided in Holly Refinery’s April 2013 netting analyses, and validated the actual emission data using UDAQ inventory records for Holly Refinery. The net increases in emissions for this project were calculated as projected future emissions (Potential to Emit for this project) minus baseline actual emissions (historical throughput emissions). Potential to Emit (PTE) emissions are maximum potential emissions, as defined in Response to Comment #21. This evaluation accounts for the increased utilization through the unit as a result of the project. *See* NOI Appendixes B & C for source-wide PTE values.

Regarding process flow diagrams, *see* Response to Comment #41.

Finally, the commenter does not identify the “other factors arising in applicant’s modernization project,” so UDAQ is unable to respond to that aspect of the comment. The comment is otherwise noted, no changes were made to the AO.

Comment #43: “Applicant’s Section 2.3.1 “Fuel Gas” Process Support Group Analysis Submittal and Related Section 3 Emission Tables Failed to Show Proper and Required Determination Under 40 CFR 52.21(b)(3)(i)(b) for Contemporaneous Creditable Increases and Decreases.” (pp. 11-13)

UDAQ Response: Without referring to any authority, the commenter claims that “[t]he emission increases over baseline actual emissions from non-modified heaters and boilers arising from increased heat duty rates for the pre-existing, non-modified heaters and boilers must be considered creditable because they will occur at the existing units at the time that the new/modified process units actually start up that make additional demands on the pre-existing, non-modified heaters and boilers. As a result, the increase emissions from the increased utilization of existing and non-modified heaters and boilers must be considered with all other contemporaneous creditable emission increases and decreases.” p. 12. The commenter also attempts to say what a proper netting analysis “would necessarily require,” but offers no

authority for any of the statements it makes, other than a reference to 40 C.F.R. 52.21(b)(3)(i), for which the commenter provides no analysis to support its conclusion.

Because the NOI does not contain the netting analysis in a form that the commenter considers sufficient, the commenter claims that “such a failure by the applicant means that the requested Approval Order cannot be issued because the proper netting analysis was not carried out.” p.15. Finally, the commenter says that this alleged omission from the NOI means that “UDEQ-DAQ must reject Applicant’s submittal since no analysis was conducted of contemporaneous emission increases and decreases that occurred from changing in utilization rates for non-modified process and emission units during the contemporaneous period.” P. 13.

The commenter is incorrect to the extent that it claims that no analysis was conducted. Holly Refinery submitted a final netting analysis on April 22, 2013. The commenter never addresses UDAQ’s netting analysis, which is found in the SPR Reviewer Notes 11 & 12 (pp. 86-87). UDAQ issues an AO only after its own review, which review the commenter never acknowledges. By basing its comment only on the adequacy of the NOI instead of the entirety of the record, the commenter fails to confront all the evidence demonstrating that the results of the netting analysis (as contained in the proposed conditions in the ITA) are correct. Therefore, by failing to point out any deficiencies in the ITA, the commenter has not provided any technical or legal basis for claiming that the Director should not issue the AO to Holly Refinery.

Under applicable law, the Director will issue an AO if the all the requirements of UAC R307-401-8 are met. The comment never addresses this rule in any way. Notably, the rule does not say that the AO cannot be issued if the applicant fails to provide some information in its application. Rather, the decision is based on whether certain “conditions have been met” by the time the agency’s review has concluded. The scope of the permitting process allows for the agency to stay in regular contact with the applicant regarding the review, and in this case UDAQ requested a variety of information from the applicant. *See* SPR pp.10-11. Moreover, after public comment, R307-401-6(3) states that “[t]he director will consider all comments received during the public comment period and at the public hearing and, if appropriate, will make changes to the proposal in response to comments before issuing an approval order or disapproval order.” This conflicts with the commenter’s suggestion that a deficiency in the NOI prevents the Director from issuing an AO.

UDAQ acknowledges that the comment provides a valid methodology for determining actual emissions. However, this is not the only method. *See* Response to Comment #42 regarding UDAQ’s netting analysis methodology and validation of actual emissions. The information being requested by the commenter is not required within the scope of the NOI. Comment is otherwise noted, no changes were made to the AO.

Comment #44: “Applicant’s Single Paragraph Section 2.3.2 Disclosure of Cooling Tower Changes Fails to Provide Sufficient Information to Determine Contemporaneous Creditable Emission Increases from Non-Modified Portion of Existing Cooling Towers.” (p. 13)

UDAQ Response: UDAQ disagrees with this comment. The commenter claims that “[f]ailure to provide such future operating information about existing, non-modified cooling tower units is a basis for Approve [sic] Order denial for failure to properly carry out a determination of contemporaneous creditable emission increase and decreases under 40 C.F.R. 52.21(b)(3)(i).”

The commenter takes issue with the NOI itself, and refers to none of the agency’s review, and therefore fails to identify the relevance of its concerns to the ITA.

See Response to Comment #42. The comment is otherwise noted, no changes were made to the AO.

Comment #45: “Nothing in Applicant’s Section 2.3.3 Disclosure Concerning Flares provides Sufficient Information to Determine Contemporaneous Creditable Emission Increases at Non-Modified Flare Emission Units.” (p. 13)

UDAQ Response: UDAQ disagrees with this comment. SPR Reviewer Note 10 (pp. 85-86) addresses the basis for the creditable emissions from the removal of the (old) South Flare and the Propane Pit Flare. *See* also Response to Comment #15 regarding the closure of the propane pit flare. Emission increases for the proposed replacement (new) South Flare are included in the project emissions as well as the netting analysis. *See* Response to Comment #42 regarding netting analysis methodology. Comment is otherwise noted, no changes were made to the AO.

Comment #46: “Nothing in Applicant’s Section 2.3.6 Section of Wastewater Treatment and the Refinery Wastewater Sewer System Provides Sufficient Physical Information to Quantify the Effect of the Refinery’s Expansion on Contemporaneous, Creditable Emission Increases and Decreases from Such Pre-existing, Non-modified Refinery Emission Units under 40 CFR 52.21(b)(3)(i).” (p. 14)

UDAQ Response: UDAQ disagrees with this comment. As an initial matter, this comment takes issue only with Holly Refining’s permit application, and does not refer at all to UDAQ’s review or the ITA. Nor does it state how the conditions of the ITA would be any different even if Holly had provided the information that the commenter believes would have been sufficient.

See Response to Comment #42. The SPR Reviewer Note 4 (pp. 80-81) indicates that Holly Refinery performed a water conservation and wastewater reduction study that indicated that there will not be an increase in emissions from wastewater treatment with this modification, even with the addition of a wastewater storage tank (Tank 158). Should Holly Refinery find that the Heavy Crude Procession project ultimately results in an expansion of its wastewater system, a permitting action would be required. At that time, UDAQ would evaluate the increase in emissions and reevaluate the impact of these increases on the Heavy Crude Processing project PSD and Major NSR applicability

UDAQ requested additional information from Holly Refinery regarding the water conservation and wastewater reductions study referenced in the NOI and received this information in a November 7, 2013 letter. Upon review, this additional information did not change the SPR determination UDAQ made regarding emissions from the Holly Refinery wastewater treatment operations.

Because emissions are not increasing from this system, the comment is otherwise noted and no changes were made to the AO.

Comment #47: “In the 2012 NOI, Applicant’s Claim of 48.1 Ton Per Year of VOC Emission Reduction from Cooling Towers 4-8 is a Spurious and Unsupported Emission Characterization of Volatile Organic Compound Net Emission Increase Analysis.” (pp. 15-16)

UDAQ Response: UDAQ disagrees with this comment. The commenter incorrectly claims that Holly Refinery relied on a 48.1 tpy or a 52.95 tpy VOC reduction from cooling towers in its netting analysis. From the UDAQ emission inventory record for 2007-2008, actual emissions for the cooling towers were 39.28 tpy of VOC, which Holly Refinery and UDAQ relied on in the PSD/Major NSR netting analysis. *See* SPR Reviewer Notes 7 (p. 83), 10 (pp. 85-86), 11 (pp. 86-87), & 12 (p. 87). The mentioned 2008 release of propane from the cooling towers was a malfunction and was not included as actual emissions for normal operations.

Holly Refinery implemented the Modified El Paso Method to monitor, or control, cooling towers 4, 6, 7, & 8. Prior to using the Modified El Paso Method, the AP-42 VOC “uncontrolled” emissions were the basis for refineries to report cooling tower VOC emissions. The Modified El Paso Method (*See Texas Commission on Environment Quality Sampling Procedural Manual Appendix P: Cooling Tower Monitoring* included in the project record July 5, 2012) is characterized as a control because it requires monitoring of the system to detect VOC emission leaks, and requires leaks to be fixed within 45 days. *See ITA Condition II.B.4.a* (pp. 21-22), which requires compliance with a VOC concentration of 6.2 ppmv, or the “controlled” emission factor.

The commenter references Exhibit 7, which is the PM_{2.5} SIP RACT analysis that the Air Quality Board proposed for public comment in October 2012, but was withdrawn in December 2012. This RACT analysis was based on information submitted to the UDAQ prior to December 2011, and prior to Holly Refinery submitting a NOI for the Heavy Crude Processing project. The RACT analysis in Exhibit 7 has been replaced by the October 1, 2013 proposal by the Board.

UDAQ is not claiming any VOC credits from any refineries in the PM_{2.5} State Implementation Plan (SIP) as proposed in October 2013, Section 5.c.iii. Any credits established and verified by UDAQ as a result of this Heavy Crude Processing project are allowable reductions for the purposes of the netting analysis.

Comment is otherwise noted, no changes were made to the AO.

Comment #48: “Applicant’s Section 3 Emission Increase and Net Emission Increase Tables Contain Erroneous Specification of Volatile Organic Compound and Hazardous Air Pollutant Emissions from Cooling Tower #11.” (pp. 16-17)

UDAQ Response: UDAQ disagrees with this comment. The commenter is not referencing the most current NOI in regards to emissions that were used in the netting analysis. Appendix C, as updated on April 22, 2013 is the basis for the project emissions in the netting analysis, including VOC emissions from the Cooling Towers 10 & 11.

The commenter also suggests that chloroform and methyl chloride might be present in the cooling tower system and that these emissions should have been addressed in the NOI. In response to this comment UDAQ requested additional information from Holly Refinery regarding whether chloroform and/or methyl chloride are present in their cooling tower system. Holly Refinery replied in an email on October 1, 2013, that it has not detected nor does it expect to detect these HAPs in its system. These emissions are generally found in cooling towers where chlorine is used and Holly Refinery does not use chlorine in its cooling water systems. The comments is otherwise noted, no changes were made to the AO.

Comment #49: “Applicant’s 2013 Netting Demonstration Impermissibly Claims a 39.28 Contemporaneous Emission Reduction Thus Rendering Applicant’s VOC Netting Analysis as Erroneous and Showing Applicant’s Planned Project and Modification as Significant Emission Increases and Significant Net Emission Increase.” (p. 17)

UDAQ Response: UDAQ disagrees with this comment. This comment focuses on supposed deficiencies in the NOI, but does not link those concerns to the conditions of the ITA or any aspect of UDAQ’s review of the NOI.

The reduction in VOC emissions reported in Holly Refinery’s NOI was a result of a voluntary monitoring program of the cooling towers that identified leaks from the towers that Holly Refinery fixed, thereby reducing its VOC emissions. Thus, the commenter is incorrect that the VOC emission reduction was a result of the implementation of a RACT requirement. *See Response to Comment #47.*

Comment is otherwise noted, no changes were made to the AO.

Comment #50: “Condition II.B.1.b in the Draft Approval Order is Too Vague to be Enforceable.”
(p. 18)

UDAQ Response: UDAQ agrees that the first paragraph ITA Condition II.B.1.b (p. 63) is unclear and will now read as follows (emphasis added to the sentence in question):

*Holly Refinery shall provide a notification of any performance test date at least 30 days prior to the test. A pretest conference shall be held if directed by the Director. It shall be held at least 30 days prior to the test between the owner/operator, the tester, and the Director. **The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.***

However, UDAQ does not agree that the equation should be included, as it is listed in Appendix A Method 1 and are incorporated by reference. Comment is otherwise noted.

Comment #51: “Production Rates During Compliance Stack Tests.” (p. 18)

UDAQ Response: UDAQ disagrees with this comment. The commenter references that the 90% of the maximum production rate is based on “a three year average,” which is incorrect. The actual language in Condition II.B.1.b of the ITA (p. 18) is: “*For an existing source/emission point, the production rate during all compliance testing shall be no less than **90% of the maximum production achieved in the previous three years,***” the maximum production rate of the previous three years, not the three year average. The 90% of the maximum production sets a minimum floor for a source in regards to stack testing, while providing a reasonable range of 90% to 100% for the source to be able to demonstrate compliance. As the requirement states, the 90% is of the maximum production achieved in the previous three years, which establishes that the tests are being based on the highest production of the last three years, thus representing the source’s most current maximum operational emissions.

In addition, the 1991 Utah PM₁₀ SIP was approved by EPA in 1994 and contains the following language on stack testing: “The production rate during all compliance testing shall be no less than 90% of the production rate at which the facility will normally be operated.” Utah PM₁₀ SIP, Appendix A, Davis and Salt Lake Counties, § 2.1.A, p. 2 (June 28, 1991).

Comment is otherwise noted, no changes were made to the AO.

Comment #52: “Tanks: VOC Emissions and Waxy Crude Handling, Transfer and Storage.”
Commenter is challenging the 90% of capacity stack testing requirement. (pp. 18-19)

UDAQ Response: UDAQ disagrees with this comment and refers the commenter to SPR Reviewer Comment 4 (pp. 79-81), where heavy crude loading/unloading emissions have been accounted for in the total fugitive emission increase of 15.25 tpy VOCs (Reviewer Comment Note 11 pp. 86-87).

In regards to the removal of the internal floating roof (IFR), *see* SPR BACT Review Notes 20 & 21 (pp. 32-34). Previously Tanks 71 & 72 held petroleum liquids, more volatile liquids with higher actual emissions than estimated heavy crude. IFR controls will remain in place on Tanks 71 & 72 until Holly Refinery submits verification of the low vapor pressure that does not require control (II.B.10.b p. 74). At the time of this verification, if emissions are found to be higher than estimated, the netting analysis that

relied on the lower emissions with this project will be re-evaluated to determine PSD and Major NSR applicability.

In any event, the commenter does not point to any concerns with the proposed conditions in the ITA. Therefore, the comment is otherwise noted and no changes were made to the AO.

Comment #53: “UDEQ-DAQ Must Reject Applicant’s Erroneous Claim VOC Emission Reduction from Removal of Floating Roof.” (p. 19)

UDAQ Response: UDAQ disagrees with this comment. This comment takes issue with Holly’s NOI, not with UDAQs review or with the ITA. *See* Response to Comment #52 regarding removal of the IFR. In addition, the commenter claims that such an emission reduction is “technically implausible” but does not explain how or why, thus failing to put the agency on notice of the basis for any perceived deficiency.

Comment is otherwise noted, no changes were made to the AO.

Comment #54: “The Approval Order Should be Amended to Contain a Section Addressing the Regulatory Status, Method of Emission Control and Monitoring-Inspection-Recordkeeping-Reporting Requirements for Tank Sources of VOC and HAP.” (p. 19)

UDAQ Response: UDAQ disagrees with this comment. Federal subpart applicability is listed in pp. 4 through 10 of the SPR, which includes tank applicability.

First, as noted, the proposed ITA conditions already require compliance with all applicable state and federal regulatory requirements for tanks and vessels at petroleum refineries. Section III of the ITA provides that NSPS Subparts K and Kb and NESHAPS/MACT Subpart CC apply to the relevant tanks at Holly Refinery. These federal (EPA) rules specifically apply to Storage Vessels for Petroleum Liquids (NSPS), Volatile Organic Liquids Storage (NSPS), and HAPs from Petroleum Refineries (MACT). The Subpart K, Kb, and CC rules impose a full array of air quality requirements on affected tanks, including emission standards, inspection, monitoring, testing, and reporting obligations, all of which relate to minimization of VOC and HAP emissions.

Second, the only tanks subject to the referenced state/federal tank standards are those being installed, modified, and used to store heavy crude. The SPR for this project states: “Due to the processing of heavy crude, several new tanks will be added or existing tanks modified to store the black and yellow wax crude or resultant products” (p. 32). The SPR also discusses which NSPS and MACT standards will apply to the new/modified tanks (p. 34). The SPR identifies the tanks subject to the NSPS/MACT requirements (p.34). Under the PSD and NSPS rules, only new or modified installations are subject to the requirements of the applicable standards. *See, e.g.*, 40 CFR § 52.21(a)(2) and (b)(2); 40 CFR § 60.14. Similarly, the NESHAPS/MACT requirements apply only to the “specific categories” of major sources identified in particular rules. *See* 40 CFR § 63.1. Therefore, only those tanks that will be installed, modified, and used to store the heavy crude are subject to these requirements.

Third, there is no requirement in the Utah air quality rules to include a section of the AO addressing all tank requirements. So long as the applicable requirements are incorporated into the AO and the AO covers all relevant installations, the AO is legally sufficient under Utah law. *See* R307-401-8. There is an advantage to incorporating by reference federal tank standards into the permit. When EPA subsequently changes its standards there is no state requirement to amend the AO.

The commenter did not reference any additional NSR requirements for monitoring these tanks, nor is DAQ aware of any additional requirements for monitoring, inspection, recordkeeping or reporting for tanks. Comment is otherwise noted, no changes were made to the AO.

Comment #55: “Applicant Must be Required to Address Condensable (sic) Emissions from 4FCCU and 25FCCU Scrubber Controls Units.” (p. 20)

UDAQ Response: UDAQ disagrees with this comment. FCC Unit 4 is not being modified (*see* Response to Comment #21) with this permitting action. The commenter has not referenced any regulatory requirement for equipment not being modified in this project to have additional requirements imposed on it, nor is UDAQ aware of such a regulation. PM_{2.5} condensable emissions will be addressed in the PM_{2.5} SIP. *See* Response to Comment #16. Comment is otherwise noted, no changes were made to the AO.

Comment #56: “UDEQ-DAQ Must Enforce Notice of Intent and Compliance Report Certification by the Applicant.” (p. 20-21)

UDAQ Response: UDAQ disagrees with this comment, as the commenter has not referenced a regulatory requirement for a signed UDAQ NSR Form 1, nor is UDAQ aware of such a requirement. UDAQ holds the source accountable for the accuracy of all submitted information and the source must demonstrate compliance with the eventual AO limits that are based on the information originally provided in the NOI (including, but not limited to, AO emission caps, CEM requirements, stack testing requirements), as well as on the results of UDAQ’s review of the NOI and related public comments.

In addition, the commenter is referencing requirements of a Title V permitting action and not an NSR action. *See* Response to Comment #19. Comment is otherwise noted, no changes were made to the AO.

Comment #57: “Compliance Assurance Monitoring” (p. 21)

UDAQ Response: UDAQ disagrees with this comment as this is not a Title V permitting action. *See* response to Comment #19. To clarify further, the monitoring requirements of Part 64 are implemented through Title V operating permits, not through NSR pre-construction permits. *See* 40 C.F.R. § 64.10(a)(1) (“The purpose of this part is to require, *as part of the issuance of a permit under title V of the Act*, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.” (emphasis added)); 62 Fed. Reg. 54,900, 54,903 (Oct. 22, 1997) (“[T]he part 64 regulations respond to the statutory mandate in the Clean Air Act Amendments of 1990 and the part 70 regulations implement title V of the Clean Air Act Amendments of 1990, which directs the Agency to implement monitoring and compliance certification requirements *through the operating permits program.*” (emphasis added)); *see also* UAC R307-415-6a(3)(a)(1) (requiring Title V operating permits to contain the applicable requirements of “40 CFR Part 64”).

Comment is otherwise noted, no changes were made to the AO.

Comment #58: UDEQ-DAQ’s Proposed Approval Order for the Applicant’s Facility Fails to Enforce Specific Requirements of the July 2008 EPA Consent Decree Covering PM Emission Limitation for FCCU Unit 4 and Fails to Require Sufficient Monitoring Necessary to Assure Compliance with PM Emission Requirements from Applicant’s FCCU Units 5 and 25.” (pp. 21-22)

UDAQ Response: UDAQ disagrees with this comment and notes that the commenter refers to FCCU Unit 5, however, there is not a FCCU Unit 5 existing or proposed at Holly Refinery. UDAQ assumes the commenter is actually referring to existing FCC Unit 4. The 2008 Consent Decree is federally enforceable and conditions within an AO do not negate Holly Refinery’s obligation to comply with

requirements of a Consent Decree. Therefore, UDAQ is not re-interpreting or relaxing any requirement of the Consent Decree, but has instead required a more conservative approach (for combustion emission) and substituted PM₁₀ for PM emissions. Holly Refinery must still comply with the PM limitation of the Consent Decree. The AO does not replace this requirement. In addition, as noted in the SPR BACT Review Note 1 (pp. 14-15), PM emissions from the Holly Refinery are primarily from combustion, therefore, the vast majority of PM emissions are PM_{2.5} and limited with PM₁₀ limitations, which include filterable and condensable PM as proposed in ITA Condition II.B.7.a.2 (pp. 24-25).

Comment is otherwise noted, no changes were made to the AO.

Comment #59: “UDEQ-DAQ Failed to Provide Best Available Control Technology Emission Limitation for PM, PM-10 or PM2.5 to Control Emission from FCC Unit 4.” (pp. 22-23)

UDAQ Response: UDAQ disagrees with this comment. FCC Unit 4 is not being modified with this permitting action, and therefore does not require a BACT analysis. *See* Response to Comment #21 and #28 regarding modifications. The removal of the CO boiler does not constitute a modification to the FCC Unit 4. The CO Boiler is a separate unit from the FCC Unit. *See* 40 CFR 60 Subpart Ja (definition of a FCC Unit).

The PM, SO₂, and CO requirements on the FCC Unit 4 in the ITA are consent decree limits that do not require an additional BACT analysis. *See* the Consent Decree paragraphs #25 (SO₂), #35 (PM), and #36 (CO) for those requirements. This NSR permitting action is the first AO that will be issued since the Consent Decree requirements were triggered, therefore, there are new limits being introduced into the AO for FCC Unit 4 based on the Consent Decree requirements. However, even if UDAQ had opted not to put these Consent Decree requirements into the AO, Holly Refinery would still have to comply with them.

Comment is otherwise noted, no changes were made to the AO.

Comment #60: “Publication of the UDEQ-DAQ Approval Order Setting NOX Emission Limitation for 4FCCU and 25FCCU Catalyst Regenerator Exhaust Must be Explained and Justified on the Record to Eliminate Error and Ambiguity.” (p. 24)

UDAQ Response: UDAQ disagrees with this comment and refers the commenter to SPR BACT Review Note 19 (p. 32) regarding the FCC Unit 25 NO_x emissions. After the initial public comment period ended in January 2013, UDAQ reevaluated the project based on comments received as well as additional information received from Holly Refinery. Upon re-evaluation of the project UDAQ determined the final proposal for the NO_x limitation in Condition II.B.2.b (p. 19) of the ITA, as discussed in the SPR Reviewer Note 19 (p. 92).

As explained earlier, Consent Decree emissions limitations need not be included in a subsequent PSD/NNSR permit. In any event, the permit is fully consistent with the current Consent Decree NO_x limits on the FCCU. The Consent Decree does not require a 20 ppmvd NO_x limit over a 365 day rolling average or a 40 ppmvd NO_x limit over a 7 day rolling average. Rather, it requires that Holly Refinery “design the NO_x Control System” to achieve such limits. Consent Decree ¶ 12. After that system is installed, Holly Refinery is to commence a 15-month demonstration period “to determine final NO_x emission limits for the FCCU.” Consent Decree ¶ 19. Based on the data from this demonstration period, Holly Refinery is to “propose concentration-based NO_x emission limits based on 7-day and 365-day rolling averages The proposed limits shall be no higher than 40 ppmvd at 0% O₂ on a three-hundred sixty five (365) day rolling average basis and 80 ppmvd at 0% O₂ on a seven (7) day rolling average basis.” Consent Decree ¶ 21.

Accordingly, the Consent Decree recognizes that the ultimate limits may be as high as 40/80 ppmvd – the limit provided for in the permit.

The comment is otherwise noted, no changes were made to the AO.

Comment #61: “UDEQ-DAQ has Omitted Oxygen Corrections for NOX and SO2 Emission Limitations that are Stack Flue Gas Concentration Limits.” (p. 24)

UDAQ Response: Although Consent Decree requirements apply regardless of whether they are included in a permit, UDAQ has opted to include this requirement in the AO and has included the 0% oxygen (O₂) into the requirements of II.B.2.b for NO_x and SO₂.

Comment #62: “UDEQ-DAQ’s Draft Approval Order Does Not Place Federally Enforceable Annual Throughput Limits on Operations of the FCC Unit 25 Process Unit. (p. 25)

UDAQ Response: UDAQ disagrees with this comment and refers the comment to Response to Comment #27 regarding throughput limits on the FCC Unit 25. Comment is otherwise noted, no changes were made to the AO.

Comment #63: “No Portion of Applicant’s NOI submittals in either 2012 or in 2013 Show or Explain How a 3,250,000 Barrel Per Rolling 12 Month Period Limitation on the Feedstock Rate to FCC Unit 4 as Contained in the UDEQ-DAQ’s Draft Approval Order Actually Limits the Potential to Emit at Applicant’s Facility to the Calculated Potential to Emit.” (pp. 25-26)

UDAQ Response: Although this comment is unclear, the commenter appears to suggest that the 3,250,000 barrel per rolling 12-month period limitation in Condition II.B.1.e of the ITA (p. 18) is on the new FCC Unit 25. However, this is an existing limit on the existing FCC Unit 4, which this permitting action does not modify. The FCC Unit 25 does not require a throughput limit, as discussed in Response to Comment #27. The commenter seems to confuse the limitation on the FCC Unit 4 (3,250,000 bpy) with the capacity of the FCC Unit 25 (8,500 bpd or 3,241,200 bpy) and incorrectly trying to compare them by stating that the 3,250,000 bpy is too high a limit based on 8,500 bpd. But as explained, this limit is on FCC Unit 4 and not FCC Unit 25. The commenter is incorrect in the assessment.

The commenter claims that the applicant did not submit engineering calculations to support the maximum hourly coke burn rate or the daily FCC flue gas flow rate for FCC Unit 25. This is correct; however, this information is irrelevant because regardless of maximum throughput rates, the emissions are limited at the values established in ITA.

Comment is otherwise noted, no changes were made to the AO.

Comment #64: “Neither Applicant Nor UDEQ-DAQ Have Properly Determined Maximum Potential to Emit for Short Term SO2 Emissions from FCC Unit 25 Wet Scrubber Exhaust Vent Compliance Determination Point that are Associated with Sulfur Recovery Unit/SRU Incinerator Outages.” (pp. 26-28)

UDAQ Response: UDAQ disagrees with this comment. ITA Conditions II.B.3.b (p. 20) and II.B.6.a (p. 22) ensure all SO₂ emissions from the SRU are being treated through a wet gas scrubber and that a SO₂ limit of 0.05 tpd and 17.7 tpy be maintained. Previously, the SRU (Unit 17) Tail Gas Incinerator emissions were limited to 1.60 tpd or 582 tpy. The proposed limits impose a much stricter SO₂ requirement. In the future Holly Refinery may evaluate this process and decide to incinerate the SRU off gas prior to routing emissions through the wet gas scrubber. In addition, neither the SRU or the Tail Gas

Incinerator are being modified with this permitting action. The only proposed change is to reroute the SRU off gas emissions through the FCC Unit 25 Scrubber. Therefore a BACT analysis is not required.

See Response to Comment #23 regarding the modeling analysis. This modeling analysis demonstrates that the predicted 1-hour SO₂ concentrations would be 50.4 µg/m³, much lower than the NAAQS of 195 µg/m³. See *Modeling Analysis Review for the Holly Refinery and Marketing Company Refinery Located in Woods Cross, Utah* (p. 6). Accordingly, there is no need to impose 1 or 24-hour SO₂ limits to protect the SO₂ NAAQS.

Comment is otherwise noted, no changes were made to the AO.

Comment #65: “Oxygen Monitoring and Wet Scrubber Outlet Volumetric Flow Rate Determination Must be Required at FCC Unit 4 & 25 Wet Scrubber Controlled Vent Stacks.” (pp. 28-29)

UDAQ Response: This comment has been addressed in the ITA, which requires continuous monitoring for both FCCUs. See ITA §§ II.B.2.a.1, II.B.2.b.1, II.B.3.d, II.B.3.e. The ITA also requires stack testing for both FCCUs. See ITA § II.B.2.c.

In any event, although Conditions II.B.2.a.1 and II.B.2.b.1 (p. 19 of the ITA) are correct in that they include the O₂ requirements by reference, UDAQ is expanding 40 CFR 60, Appendix B to include *Specifications* in II.B.2.a.1 and correcting the rule reference of R307-170 in II.B.2.b.1. These conditions now read as follows:

II.B.2.a.1 *Holly Refinery shall install, calibrate, maintain, and operate a continuous monitoring system to measure the effluent FCC Units CO emissions. The monitoring system shall comply with all applicable sections of R307-170 and 40 CFR 60, Appendix B, Specifications.*

II.B.2.b.1 *Emissions of NO_x and SO₂ from the FCC Units shall be determined through use of a CEM. The monitoring system shall comply with all applicable sections of R307-170, and 40 CFR 60, Appendix B, Specifications.*

Comment #66: “The UDEQ-DAQ Approval Order Fails to Provide Sufficient Monitoring of FCC Unit 4 & 25 Wet Scrubber Operation Sufficient for the Applicant to be Able to Assure Compliance with PM-10 Emission Limitations.” (p. 29)

UDAQ Response: UDAQ disagrees with this comment. FCC Unit 4 and 4V82 FCC Scrubber are not being modified with this project. See Response to Comment #21. Moreover, there is no such CEM requirement for Holly Refinery to monitor PM emissions at the 4V82 FCC Scrubber in the 2008 Consent Decree; Section V.A. paragraph 35 indicates that after demonstrating initial compliance, “*Holly may request EPA approval to conduct test less frequently than annually at the FCCU*”. The commenter has not identified a regulatory requirement for CEM of PM emissions at the FCC Unit 25 (25FCC Scrubber). UDAQ has required annual stack testing requirements on 25FCC Scrubber in II.B.2.c (ITA p. 20) to demonstrate compliance with the BACT determination (SPR BACT Review Note 14 pp. 27-28).

The proposed ITA also specifies how PM₁₀ emissions from the FCCU are to be determined. ITA § II.B.7.a.1. Finally, the proposed AO provides that 40 C.F.R Part 60 Subpart Ja applies. ITA § III. Subpart Ja requires monitoring of PM₁₀ emissions from FCC units. 40 C.F.R. § 60.105a(a) (“Each owner or operator subject to the provisions of this subpart shall monitor each FCCU and FCU subject to the PM emissions limit in § 60.102a(b)(1) according to the requirements in paragraph (b), (c), (d), or (e) of this section.”).

Comment is otherwise noted, no changes were made to the AO.

Comment #67: “UDEQ-DAQ Eliminated a [sic] the Previously Established PM Limits for FCC Unit 4 Without Replacing Such a Limit with a Revised BACT Determination.” (pp. 29-30)

UDAQ Response: UDAQ disagrees with this comment. Removing a SIP limit from an AO does not remove the source’s obligation to comply with the SIP. The FCC Unit 4 specific limit was removed from the AO to require a more stringent source-wide PM₁₀ CAP limitation. Holly Refinery still must comply with both the SIP and the more stringent AO requirements. Comment is otherwise noted, no changes were made to the AO.

Comment #68: “Applicant Has Not Demonstrated that the 15% Opacity Limit for 25FCCU Constitutes a BACT Visibility Emission Limitation.” (p. 30)

UDAQ Response: UDAQ disagrees with this comment. The BACT determination established a PM emission limit for the 25 FCC Scrubber (FCC Unit 25) of 0.30 lb/1000 lb coke burned. *See* SPR BACT Review Note 14 (pp. 27-28). Opacity is often a surrogate for PM and in those cases is viewed as a secondary work practice standard to ensure proper operation of the unit. Where a PM emission limit has not been established through a BACT determination, an opacity limit will be established. There may be other reasons to apply an opacity limit besides BACT, and in this case, this 20% was an existing Condition on the FCC Unit scrubber.

The commenter references 40 CFR 52.21(b)(12), the definition of BACT, but does not explain why the current opacity limit is insufficient, nor does it explain why the applicant should be able to comply with a more stringent opacity limitation. Comment is otherwise noted, no changes were made to the AO.

Comment #69: “Applicant Must Address Condensable (sic) Emissions from FCC Unit 4 & 25 Catalytic Regenerator Wet Scrubber Control Units.” (p. 30)

UDAQ Response: FCC Unit 4 is not being modified with this permitting action. *See* Response to Comment #21. In regards to FCC Unit 25 and issues regarding condensable emissions, *see* Response to Comment #16, which explains that these issues are being addressed through the SIP. The comment is otherwise noted, no changes were made to the AO.

Comment #70: “UDEQ-DAQ Must Regulate the FCC 34” Flue Gas Bypass.” (pp. 30-31)

UDAQ Response: Neither the FCC Unit 4 nor the FCC 34” Flue Gas Bypass (stack) are being modified with this permitting action (*see* Response to Comment #21) and, therefore no additional requirements are being imposed through this permitting action. Comment is otherwise noted, no changes were made to the AO.

Comment #71: “Nothing Provided by the Applicant’s Final Revised Notice of Intent Justifies the Claimed 98% Control Efficiency Claimed for VOC, HAP and CO Destruction Efficiency from Applicant’s Open Air Flares.” (p. 31)

UDAQ Response: UDAQ disagrees with this comment. The commenter has not alleged any deficiency with the ITA and instead focuses on the NOI. Nor does the commenter cite any authority for the assertions made in the comment.

The emissions of concern with flares are VOCs and H₂S from upset conditions somewhere in the plant. Flares serve as control devices for malfunction/upset conditions for safety purposes, and are not intended to prevent a malfunction or upset condition. BACT for the South flare was determined to be proper maintenance and compliance with 40 CFR 60 Subpart Ja. *See* SPR BACT Review Comment #26 (pp. 37-38). Therefore, the 98% removal efficiency referred to by the commenter is not a BACT standard and is not regulated in the AO. The combustion of flue gas through the pilot flame is accounted for in the emission calculations. Flare emissions during malfunction/upset conditions are regulated through R307-107 (ITA Condition II.3). Comment is otherwise noted, no changes were made to the AO.

Comment #72: “Applicant Failed to Address All Parts of the Existing and Proposed Flare Gas System and Failed to Carry Out a “Top Down” Best Available Control Technology Analysis.” (pp. 31-32)

UDAQ Response: UDAQ disagrees with this comment. The commenter has not alleged any deficiency with the ITA and instead focuses on the NOI. Nor does the commenter cite any authority for the regulatory requirement for a “detailed exposition of the entire flare gas collection system,” nor is UDAQ aware of such a requirement. UDAQ did determine that the submitted “Top Down” BACT analysis was sufficient to make a BACT determination. *See* SPR BACT Review Notes 26 (pp. 37-38) and 33 (pp. 42-43) for UDAQ’s review of the Flare BACT analyses. The “detailed exposition of the entire flare gas collection system” was not necessary because this “exposition” would not affect the BACT determination that a flare is necessary for malfunction/upset conditions. The commenter has not shown how consideration of these other processes would have changed the BACT determination.

Comment is otherwise noted, no changes were made to the AO.

Comment #73: “Applicant’s [sic] Cannot Dismiss Flare Gas Recovery Systems as a BACT Requirement Without Considering Prevailing Industry Practice in Favor of Such Systems at Larger Refineries.” (pp. 32-33)

UDAQ Response: UDAQ disagrees with this comment. The commenter has not alleged any deficiency with the ITA and instead focuses on the NOI. Nor does the commenter cite any authority for the assertions made in the comment.

In the comments EPA received in regards to 40 CFR 60 Subpart Ja, EPA established that flare gas recovery systems were economically viable at larger refineries, those well over 100,000 barrels per day (bpd) at a cost of approximately \$10,000 per ton. For smaller refineries this was likely not economically viable, but the EPA did not have enough data to make a determination. Holly Refinery will be at 60,000 bpd following issuance of the AO. Based on the EPA’s criteria, Holly Refinery is a smaller refinery. UDAQ evaluated the cost analysis as outlined in the SPR BACT Review Notes 26 (p. 37-38) and 33 (pp. 42-43) and found the cost effectiveness for implementing a flare gas recovery system not economically feasible. *See* SPR BACT Review Note 26 (pp. 37-38). Both the 10 year life range for a flare gas recovery system and the 6% depreciation came from EPA’s Air Pollution Control Cost Manual (2002). The commenter provides no basis for claiming that the 13.59% capital recovery claim is too high or that that the 10 year life range is too short.

The 120 tons of SO₂ emissions the commenter refers to are an estimation of malfunction emissions (SPR reviewer comment 5, pp.81-82) and do not represent normal operations. SO₂ emissions from normal operations (not malfunction) at the flare were estimated at 0.104 tpy and these are the emissions appropriate to include in the BACT analysis and BACT cost analysis. Comment is otherwise noted, no changes were made to the AO.

Comment #74: “Applicant’s Description of South Flare Gas Flow Conflicts with NSPS Subpart JA.” (pp. 33-34)

UDAQ Response: UDAQ disagrees with this comment. The commenter has not alleged any deficiency with the ITA and instead focuses on the NOI. However, *see* Response to Comment #17 in regards to an incorrect reference to the 250,000 scf/day limit in Subpart Ja. Comment is otherwise noted, no changes were made to the AO.

Comment #75: “Flare Gas Flow Metering Required.” *Commenter is suggesting that requirements imposed on the South Flare be imposed on the North Flare.* (p. 34)

UDAQ Response: UDAQ disagrees with this comment. The North Flare was not modified with this permitting action. Therefore, a BACT analysis was not required, nor were BACT limitations required for the North Flare. *See* Response to Comment # 21. Comment is otherwise noted, no changes were made to the AO.

Comment #76: “Flare Opacity Limitation is Not a BACT Limitation.” (p. 34)

UDAQ Response: UDAQ disagrees with this comment. Opacity was not set as BACT limit for the South Flare. *See* SPR BACT Review Note #26 (pp. 37-38). An opacity limit was set in the SIP to demonstrate that flares were operating correctly and that is how the opacity limit in this project is also being incorporated, as maintenance and operational verification. Comment is otherwise noted, no changes were made to the AO. In addition *see* Response to Comment #68 regarding the appropriateness of using opacity as a secondary work practice standard to ensure proper operation of the unit. Comment is otherwise noted, no changes were made to the AO.

Comment #77: “UDEQ-DAQ Must Make a Clear Finding that the Proposed Refinery Modification, Including all New and Modified Equipment, Are Subject to NSPS Subpart Ja.” (pp. 34-35)

UDAQ Response: UDAQ disagrees with this comment. *See* Response to Comment #18 regarding applicability to Subpart Ja. In addition, Holly Refinery must comply with Subpart Ja regardless if whether the subpart is included in the AO. With respect to whether there should be a specific flare section in the AO, while such a section might be appropriate in a Title V permit, there is no requirement to do so in an AO. In any event, the ITA Section II.A includes the listing of all equipment.

Comment is otherwise noted, no changes were made to the AO.

Comment #78: “SRU Incinerator.” *The commenter is asking for clarification as to whether SRU off gas can be burned in the SRU incinerator during emergency operations.* (p. 35)

UDAQ Response: UDAQ disagrees with this comment. Neither the NOI nor the ITA proposes to use the SRU tail gas incinerator to “hide” or “disguising” hydrocarbon flaring. Rather, the tail gas incinerator is proposed as a secondary control device in the event that both wet gas scrubbers are off line. To that end, UDAQ has included the following requirement in regards to operation of the tail gas incinerator during emergency operations: II.B.3.b.1 “*SRU off gas shall be routed to the tail gas incinerator only during emergency operations or during plant shutdown when both wet gas scrubbers 4V82 FCC Scrubber and 25 FCC Scrubber are off line.*”

The comment is noted. No changes were made to the ITA.

Comment #79: “Controlled Refinery Process Wastewater Sewers.” *The commenter is asking for clarification of applicability to 40 CFR 60 Subpart QQQ.* (p. 35)

UDAQ Response: UDAQ disagrees with this comment. This commenter refers to CFR 60 Subpart QQQ: Standards of Performance for VOC emissions from Petroleum Refinery Wastewater Systems. The requirements of this subpart, as well as the requirements of 40 CFR 61 Subpart FF: National Emission Standard for Benzene Waste Operations (benzene NESHAP) are incorporated by reference into the ITA under Conditions II.B.12.a & II.B.12.b (p. 28). *See also* p. 8 of the SPR. Holly Refinery must comply with all applicable terms and limitations of the NSPS and NESHAP. In addition, under Section III of the ITA, Subpart QQQ is listed with all other applicable federal requirements. Since Holly Refinery is subject to Subpart QQQ regardless of any terms within the permit, UDAQ sees no need to include the level of detail requested by the commenter.

Comment is otherwise noted, no changes were made to the AO.

Comment #80: “Neither the UDEQ-DAQ Draft Approval Order, Nor the Applicant’s Final Revised Notice of Intent Contain Any Limitation on Cooling Tower Water Total Dissolved Solids.” (p. 36)

UDAQ Response: UDAQ disagrees with this comment. The commenter cites no requirement or otherwise explains why the maximum level of TDS should be specified in the permit. UDAQ is not enforcing the TDS directly at the cooling towers, but instead is enforcing the PM₁₀ Caps as proposed in ITA condition II.B.7.a (p. 23). Holly Refinery must monitor the cooling water TDS for inclusion in the calculation methodology outlined in ITA Condition II.B.7.a.1 (pp. 23-24). *See also* SPR Reviewer Note 14 (pp. 89-90) for additional information on the modification of the PM₁₀ AO limits.

Comment is otherwise noted, no changes were made to the AO.

Comment #81: “UDEQ-DAQ Draft Approval Order Fails to Incorporate Applicant’s VOC BACT Determination and Fails to Address EPA Consent Decree Requirements for LDAR Programs at Applicant’s Facility.” (p. 36)

UDAQ Response: UDAQ disagrees with this comment. Applicability of 40 CFR 60 Subpart GGGa is listed in the ITA Section III (pp. 28-29). This subpart is where the low leak LDAR requirements are found.

The commenter does not cite a requirement in the Consent Decree to incorporate an LDAR program, nor has UDAQ found such a requirement. Regardless, as explained in Response to Comment #17, Consent Decree requirements apply regardless of whether they are included in an AO.

Comment is otherwise noted, no changes were made to the AO.

Comment #82: “Condition II.B.1.d Should Require Continuous Total Sulfur Analyzer.” (p. 37)

UDAQ Response: UDAQ disagrees with the comment. The commenter cites no requirement for the applicant to submit the plans and specification as requested by the commenter. In addition, see Response to Comment #22 regarding the SO₂ emission estimation methodology.

The comment is otherwise noted, no changes were made to the AO.

Comment #83: “Applicant’s Boiler and Heater SO₂ Short Term Emission Characterization is Erroneous.” (pp. 37-38)

UDAQ Response: UDAQ disagrees with this comment. The commenter has not cited a requirement that SO₂ potential to emit estimates must be based on the maximum short term refinery fuel gas concentrations. Holly Refinery is subject to the annual SO₂ limit of 60 ppmv (40 CFR 60 Subpart J) at all times, which includes the fuel gas combusted in the boilers and heaters. The short term limit of 162 ppmv (40 CFR 60 Subpart Ja) is to limit spikes in SO₂ at the refinery, whereas the annual limit of 60 ppmv is to limit annual SO₂. The commenter is incorrect in stating that the maximum potential to emit determinations must be based on maximum short term refinery fuel gas concentration. Rather, the potential to emit of the boilers and heaters is properly based on the maximum annual emissions of 60 ppmv as outlined in the SPR Reviewer Comment #4 (pp. 79-81), as this is the maximum annual SO₂ emissions Holly Refinery is allowed to emit.

The comment is otherwise noted, no changes were made to the AO.

Comment #84: “UDEQ-DAQ Must Address Heater/Boiler NO_x CEM Requirement.” (p. 38)

UDAQ Response: UDAQ disagrees with this comment. The commenter cites no regulatory requirement for mandatory NO_x CEM monitoring of heaters and boilers, nor is UDAQ aware of such a requirement. NO_x emissions from the proposed new heaters will be required to perform initial stack testing and then every three years thereafter to verify compliance with BACT-determined NO_x limits. *See also* Response to Comment #66 regarding CEM requirements. In addition, the commenter does not reference the conditions as proposed in the ITA, or otherwise explain why those conditions are insufficient.

In any event, the ITA indicates that 40 CFR 60 Subpart Ja does apply to the refinery. For NO_x emissions from those heaters and boiler that are subject to subpart Ja, CEM is already required. 40 CFR § 60.107a(d)

Comment is otherwise noted, no changes were made to the AO.

Comment #85: “Applicant’s Sulfur Dioxide Air Quality Modeling Prediction Understated the Short Term Sulfur Dioxide Ambient Air Quality Impact Because of the Understated Modeled Emission Rates for the Two Site Process Flares.” (p. 38-40)

UDAQ Response: UDAQ disagrees with this comment. Modeling was not triggered for SO₂ for this project. *See* Response to Comment #23. The commenter references 40 CFR 51 Appendix W, Section 8.1.2(a) as reference that malfunction/upset emissions should be included in the modeling analysis. However, the commenter neglected to include the following footnote from that same section:

“Malfunctions which may result in excess emissions are not considered to be a normal operating condition. They generally should not be considered in determining allowable emissions. However, if the excess emissions are the result of poor maintenance, careless operation, or other preventable conditions, it may be necessary to consider them in determining source impact.” 40 C.F.R. Pt. 51, App’x W, § II.B.7.a.1.2(a)n.a.

Compliance with R307-401-4 requires inclusion of controlled emission rates, which does not include malfunction operation. If SO₂ modeling would have been required, then the malfunction emissions for SO₂ would not have been included because they do not represent normal, controlled operations. The 120 tpy of SO₂ from the flares due to malfunctions, as documented in the SPR Reviewer Note 5 (pp. 81-82), are based on Holly Refinery’s historical data and do not predict future malfunctions. Nor do they result

from poor maintenance or careless operation of the flare. Comment is otherwise noted, no changes were made to the AO.

Comment #86: “Miscellaneous Comments Addressing Typographical Errors, Formatting and Citation Errors.” (p. 40)

UDAQ Response: UDAQ disagrees with this comment. Typographical errors may be found in information submitted. Where the intent is clear, resubmittal of corrected information is unnecessary, and the commenter provides no authority to the contrary.

In addition, it is unclear what reference the commenter is making to “UDEQ-DAQ Intent to Approve: The CFR citation at paragraph 1.3 is not complete and/or missing” as there is no paragraph 1.3 in the ITA or the SPR. Comment is otherwise noted, no changes were made to the AO.

Numerous comments were received from E. Blaine Rawson as authorized by Mark J. Hall. UDAQ has not repeated the entire text of the letter and attachments in this response to comments, although these documents can be found in full in the file for this permitting action (project N101230041-13). In general, UDAQ has attempted to include the full text of any specific comment, although particularly long or compound comments may have been paraphrased or split for ease of reading and brevity concerns. Where this has occurred, UDAQ includes a notation. The comments from Mark J. Hall are reflected below.

Comment #87: “PM2.5 Emissions are Significant Problems for Davis County, Utah.” And that “in the case of the Holly Refinery ITA, DAQ appears to be allowing PM2.5 emissions increases, rather than requiring ‘greater emissions reductions’ through ‘offsetting’ and required additional controls.” (p. 4)

UDAQ Response: UDAQ disagrees with this comment. The commenter is referring to the Abstract of the ITA (pp. 2-3) which indicates that a projected emissions increase/decrease from this modification was estimated at +6.82 tpy. UDAQ refers the commenter to the SPR Reviewer Comment Notes 12 and 13 (pp. 87-89) which addresses applicability to nonattainment requirements in Davis County for this increase in PM_{2.5}. No requirements were triggered based on current state and federal regulations. In addition, while the project increases and decreases for the project all on its own reflect an increase in PM_{2.5}, the overall cap for PM emissions has been reduced, not only by an overall 0.5 tpy, but in addition, where flares and emergency equipment were previously excluded from this cap, the limit now includes emissions from flares and emergency equipment. UDAQ refers the commenter to SPR Reviewer Comment Note 14 (pp. 89-90). Comment is otherwise noted, no changes were made to the AO.

Comment #88: “DAQ’s ITA Does Not Require Any Additional PM2.5 Emissions Reductions, and allows Holly Refinery to Avoid PM2.5 Offsetting Requirements That Would Lower PM2.5 Emissions.” (p. 5)

UDAQ Response: UDAQ disagrees with this comment. The commenter erroneously references an increase of 9.21 tpy of PM_{2.5} within SPR Reviewer Comment Note 13 (pp. 88-89) and has neglected to account for the contemporaneous decreases applied to calculating “significant” emission increases. The value, as explained in SPR Reviewer Note 13 (pp. 88-89), is actually 8.35 tpy, which is less than the 10 tpy significance threshold for PM_{2.5} as defined in 40 CFR 51 Appendix S.

In addition, the commenter states that the use of the PM emissions factors from the National Emissions Inventory (NEI), in place of EPA AP-42 emission factors, for proposed new equipment as discussed in SPR Reviewer Comment Note 3 (pp. 78-79) is “*incorrect, unlawful, and designed only to avoid the very*

regulations that are meant to improve Davis County's PM2.5 nonattainment problem." UDAQ disagrees with this comment. UDAQ has imposed stack testing requirements to verify emissions on the proposed new equipment where these NEI emission factors have been applied for estimating potential emissions. Condition II.B.7.a.2 (pp. 24-25) of the ITA requires stack test verification of PM emissions upon start up and then every three years on NSPS heaters and boilers. Should results of these stack test indicate that the equipment cannot meet the 0.00051 lb/MMBtu for PM₁₀, Holly Refinery would be out of compliance with its permit and would be required to either install additional control equipment to comply with this limit, or submit an application to reevaluate the project for PSD and Major NSR applicability based on actual PM stack testing data.

UDAQ did receive additional information from Holly Refinery on November 7, 2013 in regards to the NEI emission factors. Upon review of this information, UDAQ determined that its original conclusions were correct. The additional information supplements the record in regards to the use of NEI emission factors.

Comment is otherwise noted, no changes were made to the AO.

Comment #89: "DAQ Cannot Rely on the NEI PM2.5 Data/Emissions Factor Because EPA has not Determined the Factor is 'superior' to AP-42, Nor is it the "Most Representative Data Available." (pp. 6-7)

UDAQ Response: UDAQ disagrees with this comment. The commenter implies that UDAQ requires sources to use AP-42 emission factors, which is erroneous. The Introduction section of AP-42 Volume I, Fifth edition (January 1995) discusses how AP-42 emission factors are only utilized when no other data is available (pp.2-3). As the commenter notes, UDAQ has delegated authority to determine emission rates when calculating PTEs and has determined that the NEI emission factors can be used for estimating PTE emissions as long as Holly Refinery can demonstrate compliance with these emissions factors through stack testing requirements. *See* the last paragraph of SPR Reviewer Note #3 (p. 78-79) for background on NEI emission factors. In addition, during the public comment period, EPA did not object to the use of these emission factors.

Moreover, 40 C.F.R. § 60.14, by its own terms, does not apply here. Part 60 contains EPA's New Source Performance Standards regulations, which are separate from the New Source Review regulations that are relevant to this permitting process. Further, § 60.14(a) defines "modification" for NSPS purposes only, and applies by its terms to determine whether there is "a modification within the meaning of section 111 of the Act," which is the portion of the statute containing the NSPS provisions, not the NSR provisions. 40 C.F.R. § 60.14(a).

By contrast, the PSD/NSR regulations are located at 40 C.F.R. §§ 51.165, 51.166, 52.21. These regulations nowhere require the use of AP-42 emissions factors. EPA guidance states that sources other than the AP-42 emission factors may be used in determining emissions for PSD/NSR emissions. *See* New Source Review Workshop Manual at A.22 (1990) (listing the AP-42 factors, along with 5 other sources of information, including "[e]mission factors from technical literature," as data to consider in determining potential to emit).

Accordingly, there is no regulatory requirement that Holly use the AP-42 emission factors. Comment is otherwise noted, no changes were made to the AO.

Comment #90: "The NEI PM2.5 Data/Emission Factor Is Not "Superior" to AP-42 Factors, And is Not the 'Most Representative Data Available' Because the NEI PM2.5 Data/Emission Factor Greatly Underestimates Potential Emissions." (pp. 7-10)

UDAQ Response: UDAQ disagrees with this comment. This comment appears to be based on the supposed applicability of 40 CFR 60.14. As explained in Response to Comment #89, this regulation does not apply, and therefore there is no requirement to address the relative or supposed superiority of various emission factors. With respect to whether the NEI emission factors are the most representative data available, the commenter cites Appendix C of EPA’s NSR manual. While this manual is useful as guidance, it does not impose legal requirements. Therefore, the question of superiority of the AP-42 emission factors is based on an inapplicable regulation and the question of most representative data is based on a guidance document. Neither of these two sources demonstrates why use of the NEI emission factors is incorrect.

In any event, should stack testing of the equipment where the NEI emission factors have been applied indicate that PM emission rates are higher, Holly Refinery can be subject to enforcement action and may be required to add additional control equipment or submit an application to modify the permit and reevaluate the project for PSD and Major NSR applicability based on actual PM stack testing data. *See* Response to Comment #88.

Comment is otherwise noted, no changes were made to the AO.

Comment #91: “The NEI PM2.5 Emission Factor Is Not “Superior” to AP-42 Factors, And is Not the “Most Representative Data Available,” Because the NEI Emission Factor Does Not Have An Adequate Scientific Basis.” (pp. 10-17)

UDAQ Response: UDAQ disagrees with this comment, as for the most part it appears to reiterate previous comments. *See* to Response to Comments #88 & #89. In addition, the commenter enumerates five additional points to which UDAQ responds.

Comment #91(a): “NEI PM2.5 Data/Emissions Factor Is Questionable Because of the Lack of Underlying Supporting Data.” (p. 11)

UDAQ Response: Although the commenter claims that there is not enough supporting data, other than to list what it characterizes as “detailed supporting information typically required for use in estimating emissions from source other than those tested,” it does not explain with any specificity what would be adequate. The comment is otherwise noted, no changes were made to the AO.

Comment #91(b): “The NEI PM2.5 Emissions Factor Is Questionable Because Even Mr. England Warned About Test Data Limitations.” (pp. 11-13)

UDAQ Response: This point is irrelevant because Holly Refinery will be held to the limits in its AO. The comment is otherwise noted, no changes were made to the AO.

Comment #91(c): “The NEI PM2.5 Data/Emissions Factor Is Unusable Because Neither DAQ Nor EPA Has Followed the Proper Procedure.” (pp. 13-15)

UDAQ Response: UDAQ’s NSR permitting program is a SIP-approved program, and has the authority to accept whatever emission factors are appropriate to complete a review. The procedure outlined in the comment is only for EPA and not required for UDAQ. In addition, this procedure has nothing to do with the use of an emission factor in the context of issuing an AO. Comment is otherwise noted, no changes were made to the AO.

Comment #91(d): “The NEI PM2.5 Data/Emission Factor Is Required by EPA Policy to Be Changed Due to Uncertainly Factors.” (pp. 15-16)

UDAQ Response: UDAQ disagrees with the comment. The commenter claims that an evaluation of the uncertainty of the data used for the development of an emission factor is required by “EPA policy.” However, the comment never explains how compliance with the policy is a requirement, and points to no corresponding federal or state regulation for such authority.

Each project is evaluated at the time of submittal and the emission factors within that submittal are evaluated at that time. The comment is otherwise noted, no changes were made to the AO.

Comment #91(e): “The NEI PM2.5 Data/Emissions Factor Is Questionable Because It Relies Only on Natural Gas Components, And Does not Take Into Account the Quantity or Components of Fuel Gas.” (p. 17)

UDAQ Response: The commenter is referring to other components in the fuel such as sulfur. These only form particulates as secondary formation and not as direct particulate emissions, and are addressed through the PM2.5 SIP development. The comment is otherwise noted, no changes were made to the AO.

Comment #92: “Holly Refinery’s NOI Has Questionable Netting Analyses, Using a Variety of Emission Factors and Overstating Certain Issues.” (pp. 17-19)

UDAQ Response: UDAQ disagrees with this comment. This comment only takes issue with the NOI and does not tie its concerns to any proposed condition in the ITA. The April 22, 2013 netting analysis indicates the origin of both increases and decreases as well as provides the calculations and emission factor assumption. The commenter incorrectly implies that for estimating flaring emissions, the Holly Refinery has used AP-42 emission factors for decreases and NEI emission factors for increases in order to maximize decreases in emissions in the netting analysis. Refer to SPR Reviewer Comment Notes 3 & 4 (pp. 78-81) which shows that only new (NSPS) combustion sources relied on NEI emission factors. There are no reductions from new equipment, only increases in emissions from the addition of new equipment. The propane pit flare did not rely on the NEI emission factors. These flare emissions came from the UDAQ inventory record for reported actual emissions from 2008-2009 based on 259 MMBtu/hr and actual throughput data.

Comment is otherwise noted, no changes were made to the AO.

Comment #93: “DAQ Cannot “Solve” the Problems with Using the NEI PM2.5 Data/Emissions Factor by Relying on “After the Fact” Stack Test Verification.” (pp. 19-20)

UDAQ Response: UDAQ disagrees that UDAQ is “uneasy” with the NEI emission factors. UDAQ is requiring stack testing to verify these emission factors as any regulatory agency would to verify a BACT level that a source is proposing to meet. UDAQ acknowledges emission factors have an effect on PSD/Major NSR applicability, and imposes stack testing as a way to ensure the source complies with the terms of the permit. If the stack testing indicates that Holly Refinery cannot comply with these emission factors, it would be out of compliance with its AO and the project would be re-evaluated based on the actual tested emissions.

In addition, the commenter implies that UDAQ has authorized non-EPA-accepted testing methods for the NEI emission factor verification stack testing, and that UDAQ has authorized test methods related to “England’s dilution method for testing PM_{2.5}.” However, this is incorrect. In the ITA, UDAQ has only authorized the use of “40 CFR 60, Appendix M, Method 201, 201a, 202, or other EPA-approved testing

method, as acceptable to the Director” for NEI emission factor verification (*see* Condition II.B.7.a.2 of the ITA, pp. 24-25).

In any event, the comment does not refer to any of the proposed conditions in the ITA, or say how they would be different if UDAQ followed the methods referred to in the comment.

The comment is otherwise noted no changes made.

Comment #94: “Problems with PM Emissions from Fluid Catalytic Cracking Unit 25 Prevent DAQ from Issuing Permit.” (pp. 20-21)

UDAQ Response: UDAQ disagrees with this comment. The commenter is questioning the estimated PM emissions from the proposed FCC Unit 25 (controlled with 25FCC Scrubber) on which UDAQ has imposed a PM₁₀ emission limit of 0.30 lb/1000 lb coke burned. This limit was based on the BACT determination (SPR BACT Review Note 14 pp. 27-28). Regardless of the throughput the FCC Unit 25, Holly Refinery must meet the unit specific PM₁₀ limit of 0.30 lb/1000 lb coke burned and the source wide PM₁₀ limits of 47.5 tpy and 0.13 tpd for combustion sources. *See* ITA Conditions II.B.7.a and II.B.7.a.1 (pp. 65-66). If these limitations are not met, the refinery will be out of compliance until it remedies the problem with additional control equipment or redesign of the system until it meets these limits.

The commenter makes general reference to the “UOP yield estimates” and “other more generic publications,” but provided no documents or primary data to support or detail to which estimate, if any, was used to derive the suggested range of coke burn estimates. Based on UDAQ’s technical experience and expertise, the 6200 lb/hr value is a fair and reasonable estimate of the quantity of coke burn in FCC Unit 25. The commenter has not provided any specific technical information to UDAQ that would suggest a higher value is more appropriate.

The commenter suggest that Holly Refinery “significantly underestimates the coke burn” from FCC Unit 25. UDAQ requested from Holly Refinery the calculation supporting the coke burn estimate, which was provided to UDAQ in a November 7, 2013 letter. Upon review, this additional information did not change the SPR determination UDAQ made regarding emissions from the FCC Unit 25 or the limits put on this unit in the ITA. However, the additional information supplements the record supporting the issuance of the AO. *See* Response to Comments #16 & 27.

Comment is otherwise noted, no changes were made to the AO.

Comment #95: “Holly’s significant increases in CO emissions require further evaluation.” (pp. 22-23)

UDAQ Response: UDAQ disagrees with this comment. The commenter is incorrect that Holly Refinery, located in Davis County, is located in a maintenance area for CO. In fact, Davis County is an attainment area for CO. Therefore, Lowest Achievable Emission Rate (LAER) requirements were not triggered. UDAQ refers the commenter to SPR Reviewer Comment Notes 11 & 12 (pp. 86-87), which addresses Davis County attainment and nonattainment area applicability. As a matter of note, Davis County has not been designated as a contributor to a CO maintenance area in the Salt Lake County or Ogden City maintenance plans. In addition, neither the Salt Lake County nor Ogden City maintenance plans currently have LAER requirements.

The commenter disagrees with UDAQ’s BACT determination on the technically infeasible option of a thermal oxidizer for CO control of process heaters. *See* SPR BACT Review Note 2 (pp. 16-17). As explained, BACT is an emission limitation “which the Administrator, on a case-by-case basis, taking into

account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification.” 40 C.F.R. § 52.21(b)(12); UAC R. 307-401-2 (same definition). The regulations further provide that “[i]f the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology.” 40 C.F.R. § 52.21(b)(12); Utah Admin Code R. 307-401-2 (same). *See also* Response to Comment 21. A cost analysis is unnecessary for a control technology that has been determined to be technically infeasible. UDAQ evaluates BACT on a case-by-case basis and does not have an established dollar per ton value such as the one referenced by the commenter.

With this framework in mind, an evaluation of thermal oxidation for Holly’s Process Heaters, demonstrates that thermal oxidation is infeasible and therefore is not BACT.

Moreover, the *Modeling Analysis Review for the Holly Refining and Marketing company Refinery Located in Woods Cross, Utah* (Oct. 9, 2012) indicated that the total predicted concentrations are well below the NAAQS level. UDAQ concluded that “the proposed project’s impacts, when combined with other industrial sources and ambient background, would comply with federal standards.” UDAQ further concluded that “[b]ased on the results of the analysis, the reviewing modeler has determined that no additional conditions are needed in the AO to limit the air quality impact of the proposed source.”

Comment is otherwise noted, no changes were made to the AO.

Comment #96: “The State’s obligation to achieve ‘Reasonable Further Progress’ in PM_{2.5} reductions has not been met.”

UDAQ Response: UDAQ disagrees with this comment. The PM_{2.5} SIP has not been finalized. Therefore, associated state and or federal requirements have not been established. *See* Response to Comment #16. Comment is otherwise noted, no changes were made to the AO.

Eight comments were received from a member of the Friends of Great Salt Lake organization. UDAQ has not repeated the entire text of the letter and attachments in this response to comments, although these documents can be found in full in the file for these permitting actions (projects N101230041-13). In general, UDAQ has attempted to include the full text of any specific comment, although particularly long or compound comments may have been paraphrased or split for ease of reading and brevity concerns. Where this has occurred, UDAQ includes a notation. The comments from the Friends of Great Salt Lake are reflected below.

Comment #97(a): The commenter’s first six comments are informational items indicating their position and membership within the Friends of Great Salt Lake organization, their place of residence, the mission of the organization, their pleasure in visiting various shorelines, wetlands and open waters and finally their desire to continue returning to visit these areas.

UDAQ Response: The comment raises no technical or procedural concerns with the ITA or the SPR behind it, no changes were made. The comment is otherwise noted.

Comment #97(b): “Current and future emissions, including emission increases from the Holly Expansion project, will likely alter the interactions of ecosystem elements and thereby forever change the functioning of the Lake.”

UDAQ Response: This is not a comment but commentary on the ecosystem of the Great Salt Lake. *See* SPR BACT Review Note 1 (general considerations p. 15), Reviewer Comment Note 23 (Secondary Impact Analysis pp. 94-95), and Response to Comment #6. The comment is otherwise noted.

Comment #97(c): “Friends of Great Salt Lake believes that the Executive Secretary’s approval of [the] Holly Expansion will result in substantial unquantified harmful impacts of Great Salt Lake’s ecological functioning.”

UDAQ Response: This is not a comment but commentary on health impacts. *See* SPR BACT Review Note 1 (general considerations p. 15), Reviewer Comment Note 23 (Secondary Impact Analysis pp. 94-95), and Response to Comment #8. The comment is otherwise noted but raises no technical or procedural concerns with the ITA or the SPR.

Two commenters also supplied comments via electronic mail. These comments have been included in the administrative record. The following individual comments have not been previously addressed in this response memorandum.

Comment #98(a): email from Dana Holmes “I do not support the expansion in Woods Cross, a second refinery should be built closer to Uintah Basin.”

UDAQ Response: UDAQ disagrees with this comment. UDAQ refers the commenter to SPR BACT Review Note 1 (pp. 14-15) which addresses the lack of requirement under R307-401 for an existing source to submit a relocation analysis. In any event, the commenter provides no basis for its claim that the Holly Refinery should be located closer to the Uintah Basin. The comment is otherwise noted.

Comment #98(b): “Expansion (if occurs) should wait until the findings in the Uintah Basin EIS is complete.”

UDAQ Response: This comment raises no technical or procedural concerns with the ITA or the SPR. Accordingly, no changes were made.

Comment #98(c): “Holly Refinery should contribute to the cost of additional infrastructure needed to transport oil from Uintah basin to Woods Cross (additional roadway construction, annual roadway maintenance or rail construction).”

UDAQ Response: UDAQ disagrees with this comment as no regulation was provided which requires such a contribution, nor is UDAQ aware of such a regulatory requirement. The comment is otherwise noted. However, as the comment raises no technical or procedural concerns with the ITA or the SPR behind it, no changes were made.

Comment #98(d): “Holly Refinery should contribute to the Clean Air initiatives led by Utah Transit Authority including donating money towards expanded transit services, operations costs, free transit passes on bad air quality days (as Zions Bank is doing).”

UDAQ Response: UDAQ disagrees with this comment as it cites no authority that requires such a contribution, nor is UDAQ aware of such a regulator requirement. The comment is otherwise noted. However, the comment raises no technical or procedural concerns with the ITA or the SPR.

Comment #98(e): “Utah State should hold Holly Refinery to the highest standard and strictest regulatory [sic] requirements – even if that has never been done before in Utah or any other state.”

UDAQ Response: UDAQ disagrees with this comment, as no regulation was provided or reference provided to detail what additional standards should be required. The comment is otherwise noted, and raises no technical or procedural concerns with the ITA or the SPR.

Comment #99: Email received by Chris Penne, “I would like to comment that I do not support approval of the Holly Refinery expansion. While I understand the country’s need for oil, the potential negative public health impacts of the refinery expansion far outweigh any benefits the refinery may provide to the area and its citizens.”

UDAQ Response: This is not a comment but commentary on impacts on health. *See* SPR BACT Review Note 1 (general considerations p. 15), Reviewer Comment Note 23 (Secondary Impact Analysis pp. 94-95), and Response to Comment #6. The comment is otherwise noted, but raises no technical or procedural concerns with the ITA or the SPR.

Comment #100: UDAQ found an error in the June 10, 2013 ITA. The previously permitted water storage tanks had inadvertently been left out.

UDAQ Response: These water storage tanks have been put back into the permit. The exclusion of these unmodified tanks does not impact the modifications in the AO for this project.