BIG STONE II
PARTNERS IN GENERATION

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May 5, 2008

Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501-5070

FILED BY ELECTRONIC FILING

Dear Ms. Van Gerpen:

Subject: First Annual Report on Carbon Dioxide
EL05-022

The following First Annual Report on Carbon Dioxide is provided in conformance with the Final Decision and Order for the Energy Conversion Facility Permit for the Construction of the Big Stone II Project Docket EL05-022.

This is the project's first report and we would welcome comments on the format and/or content which could be incorporated into future reports.

Sincerely,

Mark Rolfes
Project Manager
Big Stone II Project

Enclosure

First Annual Report on Carbon Dioxide
May 5, 2008

Final Decisions and Order
Energy Conversion Facility Permit for the
Construction of the Big Stone II Project

EL05-022

The following Annual Report on Carbon Dioxide is provided in conformance with the Final Decision and Order for the Energy Conversion Facility Permit for the Construction of the Big Stone II Project Docket EL05-022.

The Commission's Final Decision and Order paragraph 6 includes the following condition:

6. Because there does not yet exist any federal or state regulation of CO_2 emissions, and because we do not yet know what effect such regulation may have on ratepayers in the future, the Applicants shall submit an annual report to the Commission on CO_2 with the first such report to be filed on or before July 1, 2008. Such report shall review any federal or state action taken to regulate carbon dioxide, how the operator plans to act to come into compliance with those regulations, the expected costs of those compliance efforts and the estimated effect of such compliance on ratepayers. The report should also evaluate operational techniques and commercially available equipment being used to control CO_2 emissions at pulverized coal plants, the cost of those techniques or equipment, and whether or not the operator has evaluated the prudence of implementing those techniques or equipment.

Status of Federal Action to Regulate Carbon Dioxide

Proposed Legislation

Congress is considering a number of bills that would regulate greenhouse gas emissions. Attachment 1 provides a comparative matrix of a number of the Congressional proposals. The matrix also includes the Bush Administration's Voluntary Program and the seven-state northeastern Regional Greenhouse Gas Initiative. The prospects of Congressional passage of comprehensive greenhouse gas legislation during this Congressional session are uncertain.

EPA Regulation

In their March 27, 2008 letter to selected members of Congress, EPA evaluated its response to the Supreme Court's *Massachusetts v. EPA* decision (Attachment 2). The decision found that EPA has authority under the Clean Air Act to regulate vehicle tailpipe carbon dioxide emissions. EPA is concerned about the broader ramifications of the Court's decision on sources other than cars and trucks including schools, hospitals, factories, power plant, aircraft and ships. After internal agency review, EPA concluded that the best course of action was to solicit public input through an Advanced Notice of Proposed Rulemaking (ANPR) on the specific effect of climate change and the potential for regulation of greenhouse gas emissions from stationary and mobile sources within the confines of the Clean Air Act. EPA intends to public notice the ANPR later this spring

Status of State Action to Regulate Carbon Dioxide

At this time, no state action has been taken that would regulate carbon dioxide emissions from Big Stone II. There are a number of state initiatives or accords that are working to establish regional carbon dioxide emissions reduction goals and regional cap and trade programs. One of those accords, the Midwestern Greenhouse Gas Accord plans to develop a regional greenhouse gas cap and trade program by 2010. The plan for a regional cap and trade includes the six

Midwestern states of Michigan, Iowa, Illinois, Kansas, Wisconsin and Minnesota. Indiana, Ohio and South Dakota participate as observers.

Operational Techniques and Commercially Available Equipment

A number of research initiatives are proceeding with the goal of developing commercially available equipment for the capture of carbon dioxide emissions from coal-fired boilers and for the commercial use or storage of the captured carbon dioxide. Participants include original equipment manufacturers, electric utilities and government and industry research institutions. Initiative goals include one or more of the following general objectives:

- Developing technologies suitable for integration into existing coal-fired plant designs with a commercial deployment target of "after 2020."
- Reducing the carbon dioxide capture energy penalty attributable to the increased parasitic load.
- Identify markets for the captured carbon dioxide.
- Confirm long-term storage viability and regulatory requirements of carbon dioxide storage.
- Maintain the cost competitiveness of coal-based electrical generation.

Big Stone II's selection of the supercritical technology is currently the most cost-effective means of carbon dioxide emissions reduction. In the March 2008 *Power Engineering* magazine Dr. Song Wu, Director of Advanced Technology Commercial Applications for Hitachi offered the following supporting comment: "Supercritical is now recognized as best available technology in Europe. From a life cycle and cost point of view this is certainly the best near-term solution (for carbon dioxide reductions) without causing too much economic penalty." He also observed that supercritical plants are more likely to be retrofitted with CO2 capture and sequestration technologies as they become proven.

As noted above, carbon capture technologies are currently under development. Research has progressed far enough to be able to reasonably conclude that four to seven acres would be required to retrofit carbon capture technology at the Big Stone site. Big Stone II has completed a study to identify available tracts within the current site boundary that could accommodate the additional equipment and process needs. The study concluded that adequate area exists within the site boundary and that the existing configuration of ductwork and equipment would accommodate a retrofit of a carbon capture technology (Attachment 3).

ATTACHMENT 1

CLIMATE LEGISLATION MATRIX – 110TH CONGRESS (12-14-07)

	Voluntary program	Regional cap-and-trade	Absolute cap-and-trade	Absolute cap-and-trade	Absolute cap-and-trade (4-E)	Absolute cap-and-trade	Absolute cap-and-trade	Absolute cap-and-trade
	Bush Voluntary Program	**RGGI**	**Bingaman-Specter (S. 1766)**	**Feinstein (S. 317)**	**Carper (S. 1177)[1]**	**Lieberman-McCain (S. 280)[2]**	**Lieberman-Warner (S. 2191)**	**Sanders-Boxer (S. 309)[3]**
Targets – Type	Voluntary; Intensity based	Mandatory; Absolute reductions	Mandatory; Absolute reductions	Mandatory; Absolute reductions	Mandatory; Absolute reductions; Perf. std.	Mandatory; Absolute reductions	Mandatory; Absolute reductions	Mandatory; Absolute reductions
Targets – Power Sector Reductions	18% in 1st 10 yrs			239 mmt CO_2 in 2010 446 mmt CO_2 in 2015?	239 mmt CO_2 in 2010[1] 446 mmt CO_2 in 2015?	328 mmt CO_2 in 2010 (approximately)		>708 mmt CO_2 in 2010
Targets – Baseline/Timeframe	2002-2012	2000-04 by 2009-14 10% below by 2019	2006 levels by 2020 1990 levels by 2030 60% below by 2050	2006 levels by 2011 2001 levels by 2015	2001 levels by 2015 19% below by 2030	2004 levels by 2012; 33% below by 2030 67% below by 2050	2005 levels by 2012; 15% below by 2020 70% below by 2050	1990 levels by 2020; 26% below by 2030 80% below by 2050
Scope – Covered GHGs	CO_2, methane, N_2O, SF_6, PFCs, HFCs	CO_2	CO_2, methane, N_2O, SF_6, PFCs, HFCs	CO_2, methane, N_2O, SF_6, PFCs, HFCs	CO_2	CO_2, methane, N_2O, SF_6, PFCs, HFCs	CO_2, methane, N_2O, SF_6, PFCs, HFCs	CO_2, methane, N_2O, SF_6, PFCs, HFCs
Scope – Reporting Program	Voluntary; Revise 1605(b) gdlines	Mandatory; Develop new program	Mandatory; President's discretion	Mandatory; Develop new program	Mandatory; Develop new program	Mandatory; Develop new program	Mandatory; Develop new program	Mandatory; Develop new program
Scope – Covered Sectors	Economy-wide (industry, transport, commercial/residential)	Power sector only	Power, energy-intense industry (oil, gas, coal, steel, alum., etc.)	Power sector only	Power sector only	Power, industrial (petrol., HFC, PFC, SF_6 prod.), commercial	Power, industrial (petrol., HFC, PFC, SF_6 prod.), commercial	Power; transport; others?
Scope – Flexibility	N/A	Trading; Banking; TBD - borrowing, allocation/auction	Banking; Allocation; auction (24%→100%); Safety valve (TAP); Early action (1% limit)	Allocation (output)/ auction; Early action CR; bank/borrow	Allocation (output)/ auction; Early action CR (10% limit)	Bank/borrow; Allocation; Early action CR	Bank/borrow; Allocation; Auction (51%→100%); Early action CR (5 yrs.)	Allocation/ auction; Early action CR
Scope – Offsets/Off-system	Yes; limited due to reporting requirements	Limited by type and location	Limited by type; int'l (10% limit); sequest.	Yes; 25% limit on int'l projects; sequestration	Yes; dom. & int'l projects; sequestration	Yes; dom. & int'l projects (30% limit)	Yes; dom. projects (15% limit)	Sequestration only (Sanders)
Scope – Agency to Administer	DOE	State DEPs	President	EPA	EPA	EPA and Climate Change Credit Corp.	EPA and Climate Change Credit Corp.	EPA
Technology – RD&D	Focus on hydrogen, CCT	Allowance set-aside to fund strategic energy purpose	Coal; CCS; transport; nuclear; Energy & Intl. Tech. Deploy. Funds	Auction revenues used for Climate Action Trust Fund	Climate Action Trust Fund (auction $); Set-aside for clean coal	Some allowance $ for advanced energy tech., including nuclear	Coal; CCS; transport; Auction and allowance $ for C.C. Credit Corp.	Climate Reinvestment Fund (W); Allows CCS, clean coal (S)
Technology – Renewable Energy	Production Tax Credit (PTC); EE/RE $	Allowance set-aside to fund strategic energy purpose	Energy & Intl. Tech. Deploy. Funds	Auction revenues used for Climate Action Trust Fund	Auction revenues used for Climate Action Trust Fund	Solar only	Auction and allowance $ for CCCC; Biomass	20% by 2020 RPS
Technology – Energy Efficiency	EE/RE $	Allowance set-aside to fund strategic energy purpose	Energy Tech. Deploy. Fund, state auction $	Auction revenues used for Climate Action Trust Fund	Auction revenues used for Climate Action Trust Fund	EE tech. incentives; Energy efficiency stds.	Auction and allowance $ for CCCC; Incentives for EE tech.	Energy efficiency stds
Financial Issues – Costs & Recovery	IGCC depends on state cost recovery	TBD	$12/$tCO_2e$ TAP (increase 5%/yr + infl.)	$42–65 billion? (power sector only)	$42–65 billion? (power sector only)	$100 billion (US economy)		Tech-index stop price (S); >$279 B (power sector only)

[1] The mercury reduction requirements under S. 1177 – introduced in 2007 – make the economic impacts more significant on the power sector than S. 280, even though the CO_2 reductions are less.
[2] H.R. 620, introduced by Reps. Olver and Gilchrest in 2007, is similar to the Lieberman-McCain proposal.
[3] H.R. 1590, introduced by Rep. Waxman in 2007, is similar to the Sanders-Boxer proposal.

ATTACHMENT 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 27, 2008

The Honorable Barbara Boxer
Chairman
Committee on Environment
and Public Works
U. S. Senate
Washington, D.C. 20515

The Honorable James Inhofe
Ranking Member
Committee on Environment
and Public Works
U. S. Senate
Washington, D.C. 20515

Dear Chairman Boxer and Ranking Member Inhofe:

Knowing of your continued interest in the issues involving greenhouse gas emissions, I am writing to inform you of action I have taken today to move the Agency forward to examine these critical issues.

In the time since the Supreme Court's *Massachusetts v. EPA* decision I have benefited from extensive briefings by EPA staff as they worked to develop an initial response to that decision and I carefully considered how EPA should best move forward.

As we were working on this response, Congress passed and the President signed the Energy Independence and Security Act (EISA) which, among other things, expanded EPA's authority over renewable fuels and required the Department of Transportation to coordinate with EPA on its CAFE regulations. Thus, the EISA represents a statutory change that will have concrete effects upon the emissions of greenhouse gases though it does not change EPA's obligation to provide a response to the Supreme Court decision. In the weeks following the passage of this law, I considered a range of options for how to move forward.

In doing so, EPA has gone beyond the specific mandate of the Court under section 202 of the Clean Air Act and evaluated the broader ramifications of the decision throughout the Clean Air Act. This review has made it clear that implementing the Supreme Court's decision could affect many sources beyond just the cars and trucks considered by the Court, including schools, hospitals, factories, power plants, aircraft and ships. In fact, the Agency currently has many pending petitions, lawsuits, and deadlines that must be viewed in light of the Supreme Court's decision.

During this review, I considered the option of soliciting public input through an Advance Notice of Proposed Rulemaking (ANPR) as the Agency considers the specific effects of climate change and potential regulation of greenhouse gas emissions from stationary and mobile sources

under the Clean Air Act. I have concluded this is the best approach given the potential ramifications.

Such an approach makes sense because, as the Act is structured, any regulation of greenhouse gases – even from mobile sources – could automatically result in other regulations applying to stationary sources and extend to small sources including many not previously regulated under the Clean Air Act. Consequently, any individual decision on whether and how sources and gases should be regulated may dictate future regulatory actions to address climate change. My approach will allow EPA to solicit public input and relevant information regarding these interconnections and their possible regulatory requirements.

This approach gives the appropriate care and attention this complex issue demands. It will also allow us to use existing work. Rather than rushing to judgment on a single issue, this approach allows us to examine all the potential effects of a decision with the benefit of the public's insight. In short, this process will best serve the American public.

In the advance notice EPA will present and request comment on the best available science including specific and quantifiable effects of greenhouse gases relevant to making an endangerment finding and the implications of this finding with regard to the regulation of both mobile and stationary sources.

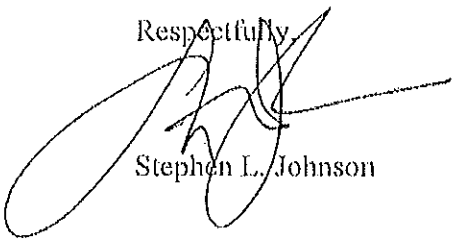
In addition, exploring the many relevant sections of the Clean Air Act, particularly those raised by groups requesting that we regulate greenhouse gases, we will highlight the complexity and interconnections within various sections of the Clean Air Act. EPA's advanced notice will also seek comment, relevant data, questions about and the implications of the possible regulation of stationary and mobile sources, particularly covering the various petitions, lawsuits and court deadlines before the Agency. These include the Agency response to the *Massachusetts v. EPA* decision, several mobile source petitions (on-road, non-road, marine, and aviation), and several stationary source rulemakings (petroleum refineries, Portland cement, and power plant and industrial boilers).

The advance notice will also raise potential issues in the New Source Review (NSR) program, including greenhouse gas thresholds and whether permitting authorities might need to define best available control technologies. If greenhouse gases were to become regulated under the NSR program, the number of Clean Air Act permits could increase significantly and the nature of the sources requiring permits could expand to include many smaller sources not previously regulated under the Clean Air Act. This notice will provide EPA an opportunity to hear from the public and from states on these issues.

In order to execute this plan, I have directed my staff to draft the ANPR to discuss and solicit public input on these interrelated issues. This advanced notice will be issued later this spring and will be followed by a public comment period. The Agency will then consider how to best respond to the Supreme Court decision and its implications under the Clean Air Act.

If you have additional questions or concerns, please contact me or EPA's Associate Administrator, Office of Congressional and Intergovernmental Relations, Chris Bliley, at 202-564-5200.

Respectfully,



Stephen L. Johnson

cc: Majority Leader Harry Reid
Minority Leader Mitch McConnell

ATTACHMENT 3

BIG STONE II CO-OWNERS
BIG STONE II POWER PLANT

CARBON CAPTURE RETROFIT READY ANALYSIS

FILE NO. 142662.42.1408
SYSTEM ANALYSIS

ISSUE DATE AND REVISION NO.
030708-0

Table of Contents

1.0 Introduction

Big Stone II is a super-critical pulverized coal power plant project located at the existing Big Stone site near Big Stone City, SD. Big Stone II's size is currently considered to be between 500 megawatts to 580 megawatts nominal. The final size decision is pending permit approval and ensuing business decisions.

An analysis was performed of the current site layout. The status of the site for being "carbon capture retrofit ready" (CCR) was reviewed and discussion and summary of that analysis is included.

The definitions of CCR followed those outlined in the 2007 Memorandum of Understanding (Attachment 1) between the Nevada Power Company, the Sierra Pacific Power Companies, and the State of Nevada (State of Nevada – Department of Conservation & Natural Resources – Division of Environmental Protection or "NDEP").

The definition of Carbon Capture Ready from this Memorandum of Understanding is defined as:

'Specifically for purposes of this MOU, "Carbon Capture Ready" means that the Companies will set aside sufficient real estate in the general vicinity of the pulverized coal boiler(s) stack(s) to allow for the design, installation and operation of future CO_2 capture equipment and will design the Facility such that ducting can be configured and constructed to divert exhaust gases to a CO_2 capture system.'

This document reports analysis that reviewed the currently planned Big Stone II site for two items:

- Sufficient real estate in the general vicinity of the pulverized coal boiler stack.
- Potential ducting configurations for diverting exhaust gases to a CO_2 capture system.

2.0 Site Description

The existing and proposed Big Stone II power plant includes a total site area of 3,200 acres. This large area allows for the addition of future systems. The Big Stone site is currently configured as shown in Attachment 2. This layout includes a power block (boiler and turbine/generator), pulse jet fabric filter, wet scrubber for sulfur removal, and 498-foot tall chimney. An important note is that the wet scrubber and chimney are sized for both Big Stone II and Big Stone I. The takeoff point for flue gas for a carbon capture system would be after the common scrubber. A future carbon capture system could be designed to capture the carbon dioxide from both units. This would provide an opportunity to prepare over 1,000 MW of installed coal energy for carbon capture.

Background information regarding the areas around the plant chimney:

North of plant chimney – The area north of the chimney currently is planned to accommodate the common wet scrubber and power block. It is not practical to consider this area for future location of carbon capture equipment.

East of plant chimney – The area east of the chimney (beyond the scrubber facilities) is generally open and would be a likely area for consideration.

South of plant chimney – The area to the south of the chimney is planned to accommodate facilities that will be used for the common wet scrubber (i.e. limestone unloading, storage, and crushing).

West of plant chimney – The area to the west and southwest of the plant chimney is the current location of the coal handling facilities. This area is generally open and is also a good candidate for consideration of real estate.

Options within these areas are discussed in the following sections.

3.0 Specific Analysis of Real Estate Around Chimney

The following tracts of real estate have been reviewed. The proximity to the plant chimney being "close" is somewhat arbitrary, but we would suggest using the following conservative guideline. Currently, the layout depicts the ducting run from Big Stone I to the common scrubber is approximately 700 feet. All tracts considered in this analysis have some portion of the area within 700 feet of the chimney. As this is the actual run of ductwork for the current plan, a limit of 700 feet should be a conservative short length of run.

These tracts can be seen in Attachments 3 – 6.

3.0.1 Tract CCR1

This tract of land is the most likely candidate for the addition of future carbon capture equipment. The area of this tract is 7.9 acres. It is open, would serve well, and is the closest currently open tract. The distance from the closest edge of this tract to the chimney is approximately 300 feet. Within the current facilities that exist in this footprint, the main concern is the rail spur access into the power block. The rail spur is anticipated to be used for the limestone unloading system for Big Stone II. It is currently used for storage of rail cars for loading bottom ash for Big Stone I and would continue to be used for that purpose also. Using this tract for CCR would likely require the rail spur to be rerouted to turn to the east, paralleling the site boundary with the ethanol plant. Concerns with other facilities in this tract are minor, such as surface water collection, etc. These facilities may or may not need to be moved depending on the CCR equipment selected.

3.0.2 Tract CCR2

This tract of land primarily expands the CCR1 tract to encompass a larger area. The area of this tract is 10.5 acres and incorporates approximately 6.9 acres of CCR1. While CCR1 is currently almost wide open, CCR2 includes some of the planned water pre-treatment facilities. The closest edge of CCR2 is nearly the same as that of CCR1, and as such it is approximately 350 feet from the chimney. The water pre-treatment facilities would be moderately easy to relocate if we decided that the carbon-capture equipment needed an absolutely clear landscape for installation. The cost of moving or replacing these facilities is minimal compared to the expected cost of installing carbon-capture equipment. It would seem prudent to make the determination as to whether this facility needs to be moved once an actual technology is identified and a conceptual design reviewed to determine this need.

3.0.3 Tract CCR3

This tract of land exists south and west of the chimney. This area is quite large and the general estimate of this area is 16.5 acres. The closest edge of the tract is about 500 feet from the chimney. This area provides the largest and most unobstructed area, however, it is inside the rail loop for train deliveries. Another aspect of this area is that several wet areas here may be deemed as wetlands. One final note is that this tract borders the coal handling and storage area, which must be taken into account when designing the system.

Tabular Summary of Land Tracts

Tract	Area of Tract	Distance from Chimney	Evaluation of Tract for Carbon Capture Equipment
CCR1	7.9 acres	300 feet	Excellent
CCR2	10.50 acres (includes 6.9 acres of CCR1)	350 feet	Very Good
CCR3	16.5 acres	500 feet	Good
Sub total	34.9 acres		
Duplicate acres	6.9 acres		
Total acres available for CCR	**28 acres**		

The land tracts that are under control of the Big Stone II ownership group are CCR1 and CCR2. CCR3 is owned by the Big Stone I owners. There are two likely steps that would be taken to keep these land areas clear so that the tracts would not be used for any other purpose.

1. Commitment by the co-owners through an amendment to the Participation Agreement

The Big Stone II owners (or the Big Stone I owners for CCR3) will agree to commit this land tract through an amendment in the existing project agreements that would dedicate approximately 7.9 or 10.5 acres on the site within 350 feet of the plant chimney as area only to be used by carbon capture equipment.

2. Designation of the Tract in the engineering control documents

The official Black & Veatch Project Design manual and site layout drawings will be updated to include a "CCR" zone for CCR1, CCR2, or CCR3 (assuming acceptance by the Big Stone I ownership group). These official control drawings and documents would then guide the engineers and construction managers to not include any additional permanent facilities other than those that are currently anticipated in the site layout drawing.

4.0 Ducting Configurations

The various ducting configurations can be found in Attachment 7. These ducting configurations are reasonable and within 700' of the currently considered outlet of the wet scrubber and breach for the chimney.

The section of ductwork that is currently planned for the "outlet flange" of the wet scrubber to the "inlet flange" of the stack would be removed. A new ducting configuration would then be put in its place that would allow for the ducting to and from the carbon capture equipment. This is depicted in Attachment 8.

The following considerations should be given to the ducting configurations.

4.0.1 Tract CCR1 & CCR2

The shorter duct runs are an advantage for these location options. The current depicted location of the scrubber building might appear to interfere with ducting, but the exit elevation of the scrubber duct is above the roof elevation of the scrubber building.

4.0.2 Tract CCR3

The rail and the coal storage and handling system would need to be considered for this tract, but the large footprint provides options for orienting the system. The exit elevation of the scrubber duct is high enough to accommodate any rail needs at that height.

5.0 Summary and Conclusions

5.1 Summary

Numerous carbon capture technologies are in the developmental stage with more unknowns than certainties at this time. Space requirements will vary depending on the technology selected. Current assumptions are that three to seven acres would be required at the Big Stone site.

All of the potential tracts have advantages and disadvantages, again depending on the equipment or process ultimately selected. When the technology has matured and the requirements are more defined, the selection of a tract can be narrowed to meet the need.

5.2 Conclusions

Should a carbon capture retrofit be required or desired, adequate area exists within the site boundary to accommodate the equipment and process.

The existing configuration of ductwork and equipment would accommodate a retrofit project if required.

6.0 List of Attachments

Attachment 1 - Memorandum of Understanding between the Nevada Power Company, the Sierra Pacific Power Companies, and the State of Nevada (State of Nevada – Department of Conservation & Natural Resources – Division of Environmental Protection or "NDEP")

Attachment 2 – Site Arrangement Spatial Allocation Drawing

Attachment 3 – Current Configuration of Big Stone II Site Layout

Attachment 4 – CCR 1

Attachment 5 – CCR 2

Attachment 6 – CCR3

Attachment 7 – Possible ducting configurations

Attachment 8 – Potential CCR retrofit take-off location

Attachment 1
Memorandum of Understanding
Between
Nevada Power Companies and Sierra Pacific Power Companies
And
State of Nevada

MEMORANDUM OF UNDERSTANDING

BETWEEN

NEVADA POWER COMPANIES AND SIERRA PACIFIC POWER COMPANIES

AND

STATE OF NEVADA

This Memorandum of Understanding ("MOU") between Nevada Power Companies and Sierra Pacific Power Companies ("the Companies") and the State of Nevada (State of Nevada – Department of Conservation & Natural Resources – Division of Environmental Protection or "NDEP") (each, a "Party" and collectively the "Parties") is entered into as of November 20, 2007.

I. RECITALS

WHEREAS, the Companies have proposed to construct an electrical generation facility in White Pine County, Nevada (the "Facility"). The Facility would produce electricity using coal. As with the combustion of any fossil fuel, by using coal, the Facility will produce carbon dioxide ("CO2") emissions. CO2 is a greenhouse gas ("GHG").

WHEREAS, there is concern that an increase in world-wide GHG emissions may contribute to a change in global climate. How to address GHG emissions - while balancing energy demand, economic growth, and national security - is a matter of considerable debate. Based on currently applicable laws and regulations there are no requirements that would impose emissions limitations or controls on CO2.

WHEREAS, in the State of Nevada, the matter of GHGs is presently under review. By Executive Order on April 10, 2007, Governor Jim Gibbons formed a 15-member Nevada State Climate Change Advisory Committee. The Committee represents a wide spectrum of viewpoints in Nevada and is charged with providing a final report and recommendations to the Governor on how Nevada may further reduce GHG emissions, including through the use of renewable energy sources.

WHEREAS, the State of Nevada recognizes that electrical energy generation from coal is an important part of a diversified energy portfolio, providing greater assurance of sufficient, reliable, and cost-effective electrical energy.

WHEREAS, at present, there is no large scale technology currently available to capture CO2 emissions ("CO2 Capture Technology") from facilities of this type. Nor are there commercial prototypes of CO2 Capture Technology available for such facilities. The Parties believe, however, that the Facility can be designed and constructed to be "Carbon Capture Ready" so that the Facility may in the future be retrofitted to capture CO2 emissions and sequester (CC&S) and/or appropriately manage the emissions in a suitable manner when CO2 Capture Technology is demonstrated to be feasible and commercially available and can be implemented in a cost effective manner.

NOW, THEREFORE, and in consideration of the foregoing, the Companies and NDEP enter into this MOU, whereby, the Companies commits to use commercially reasonable efforts to design the Facility in a manner that is "Carbon Capture Ready".

II. COMMITMENT FOR CARBON CAPTURE READY FACILITY

A. Facility Covered By the MOU. The Proponent is proposing to build the following Facility in Nevada that is subject to this MOU: an ultra super critical coal-fired generating plant in White Pine County, Nevada known as the Ely Energy Center ("EEC"). The Public Utilities Commission of Nevada ("PUCN") approved the development activities of the EEC, under the terms of an Order issued in Dockets No. 06-06051 and 06-07010 in November, 2006.

B. Other Facilities. NDEP will engage and negotiate with any applicant for a new coal-fired power plant in an effort to secure an MOU establishing a commitment whereby such applicant agrees to the design, installation, and operation of carbon capture and sequestration consistent with this MOU. Therefore, the NDEP agrees that if other person(s) propose additional coal-fired power projects in this State (including projects proposed as of the date of this MOU), NDEP will seek to reach an understanding with those persons regarding CO2 Capture Technology, as provided for in this MOU. If any new coal-fired facility goes forward with a less onerous commitment, a true and complete copy of such commitment shall be provided to the Companies and the less onerous aspects of such commitment will replace such commitment in this MOU. If any new coal-fired facility in the State of Nevada is allowed to proceed without such a commitment, this MOU will terminate effective immediately and without further action of the Parties upon the commencement of on-site construction of such facility.

C. The Companies' commitment to "Carbon Capture Ready" facilities.

1. CO2 Capture Technology for coal fired power plants has not been demonstrated on a large scale and it is not yet commercially available. There are no commercial prototypes available for facilities of this type. It is likely that significant improvements in CO2 Capture Technology will occur before CO2 Capture Technology is demonstrated on a large scale and is deemed commercially available. It is therefore understood and agreed that no CO2 Capture Technology or method can or should be specified at this time.

2. The Companies will, however, use commercially reasonable efforts to design and Construct the proposed Facility in a manner intended to be "Carbon Capture Ready" (as defined herein) so that the Facility may be retrofitted in the future with CO2 Capture Technology to capture and sequester and/or appropriately manage CO2 emissions from the Facility in a suitable and safe manner. Specifically for purposes of this MOU, "Carbon Capture Ready" means that the Companies will set aside sufficient real estate in the general vicinity of the pulverized coal boiler(s) stack(s) to allow for the design, installation and operation of future CO2 capture equipment and will design the Facility such that ducting can be configured and constructed to divert exhaust gases to a CO2 capture system.

3. The Companies' commitment to construct a Carbon Capture Ready plant is

contingent on the Companies receiving all necessary permits and approvals and financing for the Facility. The commitment is also subject to the Companies' own independent decision to proceed with the Facility.

4. Given that the Facility will be owned by a regulated utility serving customers within the State of Nevada, whether CO2 Capture Technology is "commercially available" will be assessed by the Public Utilities Commission of Nevada ("PUCN") and any final approval to install CO2 Capture Technology must include approval by the PUCN. Upon receiving final approval, the Companies will install the CO2 Capture Technology.

5. In addition, the Parties anticipate that the applicable legal requirements may be very different at the time a final determination may be made that CC&S is technically feasible and commercially available. Accordingly, notwithstanding the commitment set forth in paragraph C(4) above, in the event that state or federal laws regulating CO2 emissions, including but not limited to the establishment of CO2 emission limitations, CO2 capture and storage requirements, or the establishment of a cap-and-trade or carbon tax program, are enacted that are applicable to the Facility, the Companies' compliance with such laws may satisfy and supersede the commitment set forth above and this MOU shall terminate. For purposes of this paragraph, laws regulating CO2 emissions shall not be deemed to include laws that simply create GHG monitoring and reporting requirements or laws that impose other, nonsubstantive or administrative requirements. If either of the Parties believes that changes in state or federal law have occurred that may result in termination of this MOU, the Parties agree to meet and discuss the change(s). The Parties agree to compare the change(s) in state or federal law with the requirements of this MOU. The MOU will not be terminated if the Parties agree that the change in state or federal law results solely in a GHG monitoring and reporting requirement or a nonsubstantive or administrative requirement.

6. The Parties note that development of this Facility, including associated transmission lines and equipment, may require the federal government to prepare an Environmental Impact Statement (EIS) under National Environmental Policy Act (NEPA). The Parties agree that nothing in this Memorandum of Understanding should be read to require the original EIS for the Facility to consider CO2 Capture Technology in the course of the review of potential impacts of the proposed Facility. This is due in part because of the uncertainty of the exact technology to be adopted, as well as the fact that the timeline for implementing CO2 Capture Technology is unknown. However, it is understood that the CO2 Capture Technology may be evaluated, where applicable and as required under NEPA, before the Facility makes the transition from "Carbon Capture Ready" to actual implementation of CO2 Capture Technology. The Parties also recognize that the scope of the EIS is a matter for the federal government, including the Bureau of Land Management of the Department of Interior.

7. This MOU is intended to be binding only as to the specific obligations of the Parties set forth herein. This MOU does not commit the Companies to proceed with the implementation of CO2 Capture Technology at the Facility, unless or until a final determination has been made subject to the conditions set forth in paragraphs C(4) and C(5) above.

D. Advancement of Research. The Parties acknowledge that much research is underway

by the public, academic and private sector to advance CO2 Capture Technology and to increase understanding of sequestration opportunities. The NDEP encourages the Companies to pool resources with the public, academic and/or private sector to advance such research. The Companies will provide the NDEP with periodic reports summarizing the results of the research the Companies, or its affiliates, are involved with that has the potential to be applicable to CC&S at the Facility.

III. MISCELLANEOUS

A. Notices. Any notices required under this MOU shall be in writing and shall be deemed to have been duly given if sent via a national overnight courier service or by certified mail, return receipt requested, postage prepaid, addressed to the Parties as follows:

Companies: Mr. Michael W. Yackira
Chief Executive Officer
Nevada Power Company
Sierra Pacific Power Company
6226 West Sahara Avenue
Las Vegas, Nevada 89146

Nevada: State of Nevada - Division of Environmental Protection
Attn: Administrator
901 So. Stewart Street, Ste 4001
Carson City, NV 89701-5249
(775) 687-4670

State of Nevada - Division of Environmental Protection
Bureau of Air Quality Planning
Attn: Section Chief
901 So. Stewart Street, Ste 4001
Carson City, NV 89701-5249
(775) 687-9329

B. Amendments. This MOU may not be amended, changed or modified except by a written document signed by each of the Parties.

C. Limitation. Nothing contained in this MOU shall be construed as a defense against any future statutory or regulatory requirement.

D. Regulations. Nothing in this MOU shall be deemed as prohibiting the State Environmental Commission from promulgating regulations applicable to greenhouse gas emissions and the Facility.

E. Successors and Assigns. This MOU shall apply to the Parties and their respective successors and assigns.

F. No Third Party Beneficiaries. This MOU is intended for the sole benefit of the Parties, and the Parties do not intend to create any other third party beneficiaries or otherwise create privity of contract with any other person.

G. Authorized Representative. Each undersigned representative of the Parties certifies that he or she is fully authorized to enter into this MOU and to execute this document for the Party he or she represents.

H. Counterparts. This MOU may be executed in separate counterparts, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

NOW, THEREFORE, and in consideration of the foregoing, the Companies and NDEP enter into this MOU, whereby, the Companies commits to use commercially reasonable efforts to design the Facility in a manner that is "Carbon Capture Ready".

STATE OF NEVADA [acting by and through the Nevada Division of Environmental Protection]

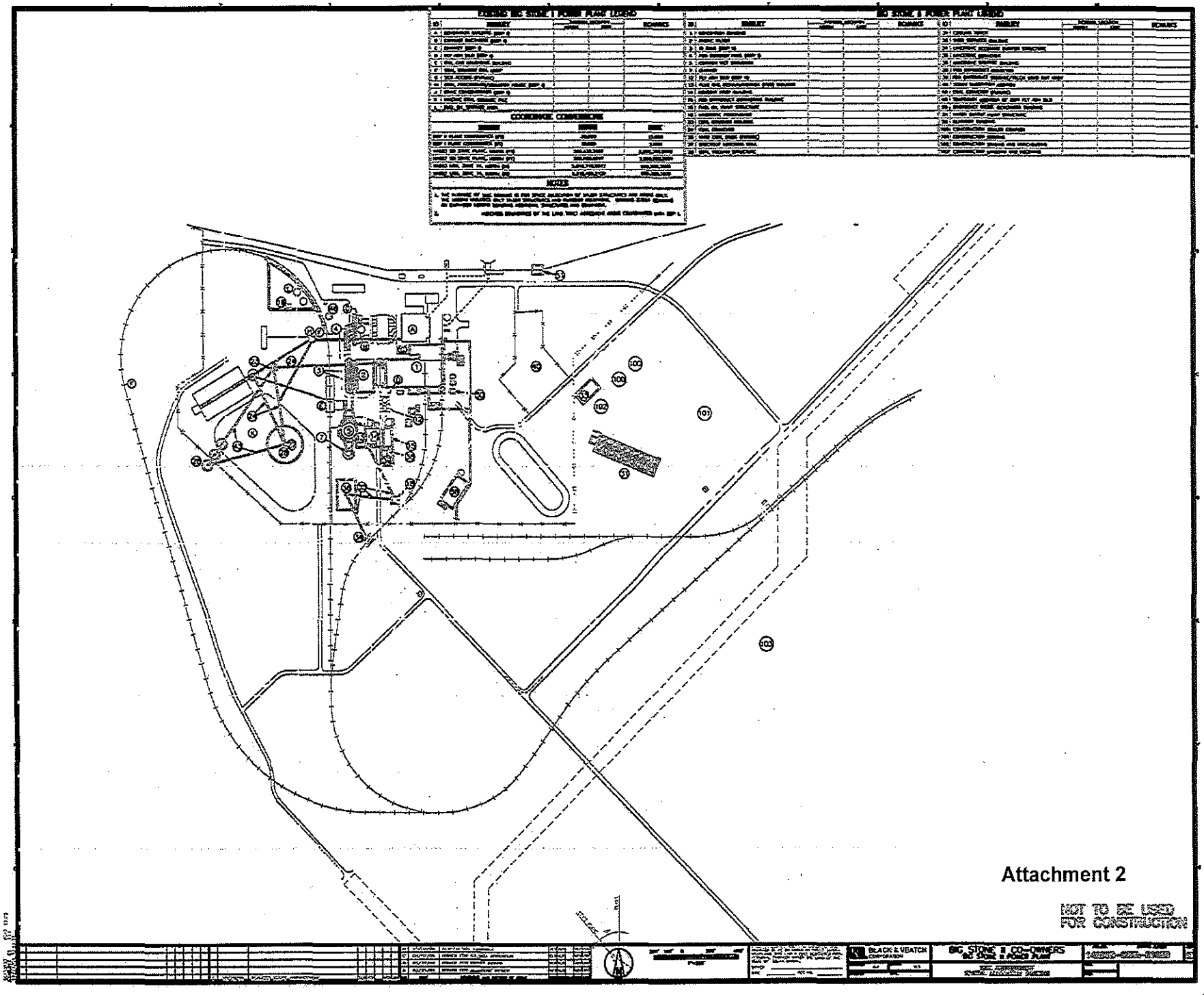
Leo M Drozdoff — 11/20/07

Name: Leo M. Drozdoff, Title: Administrator — Date

NEVADA POWER COMPANY
SIERRA PACIFIC POWER COMPANY

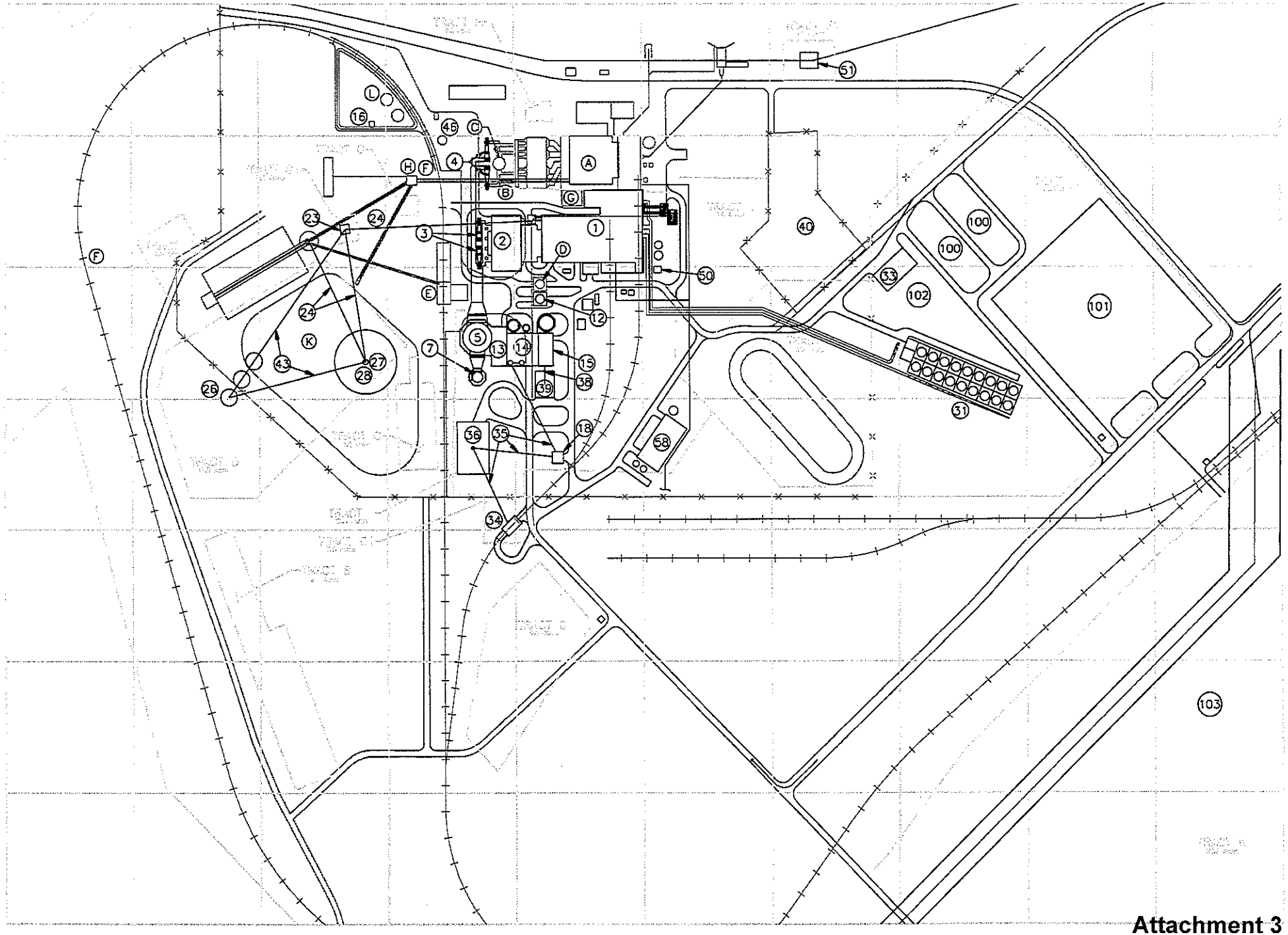
[signature] — 11/20/07

Name: Michael W. Yackira — Date
Title: Chief Executive Officer

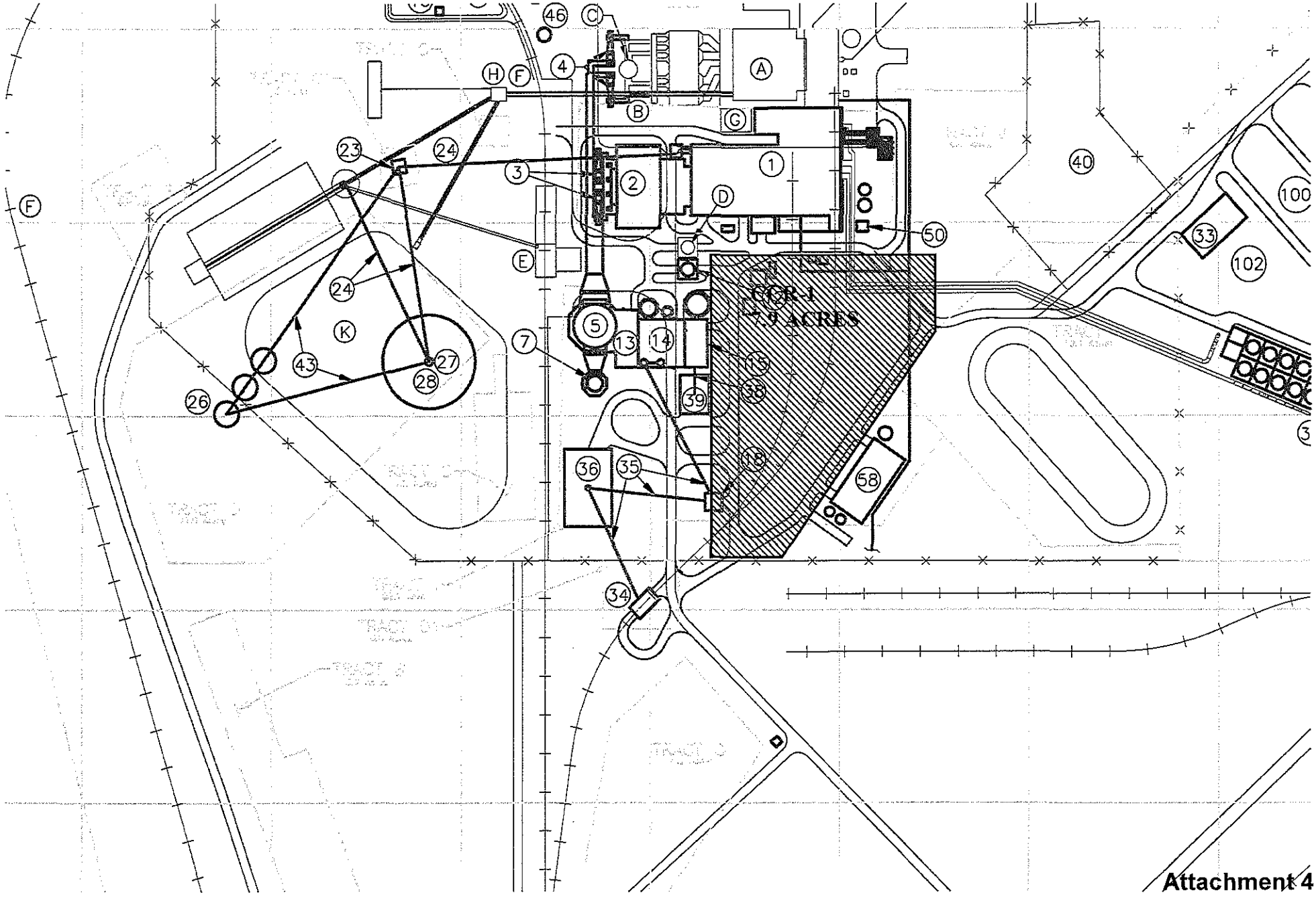


Attachment 2

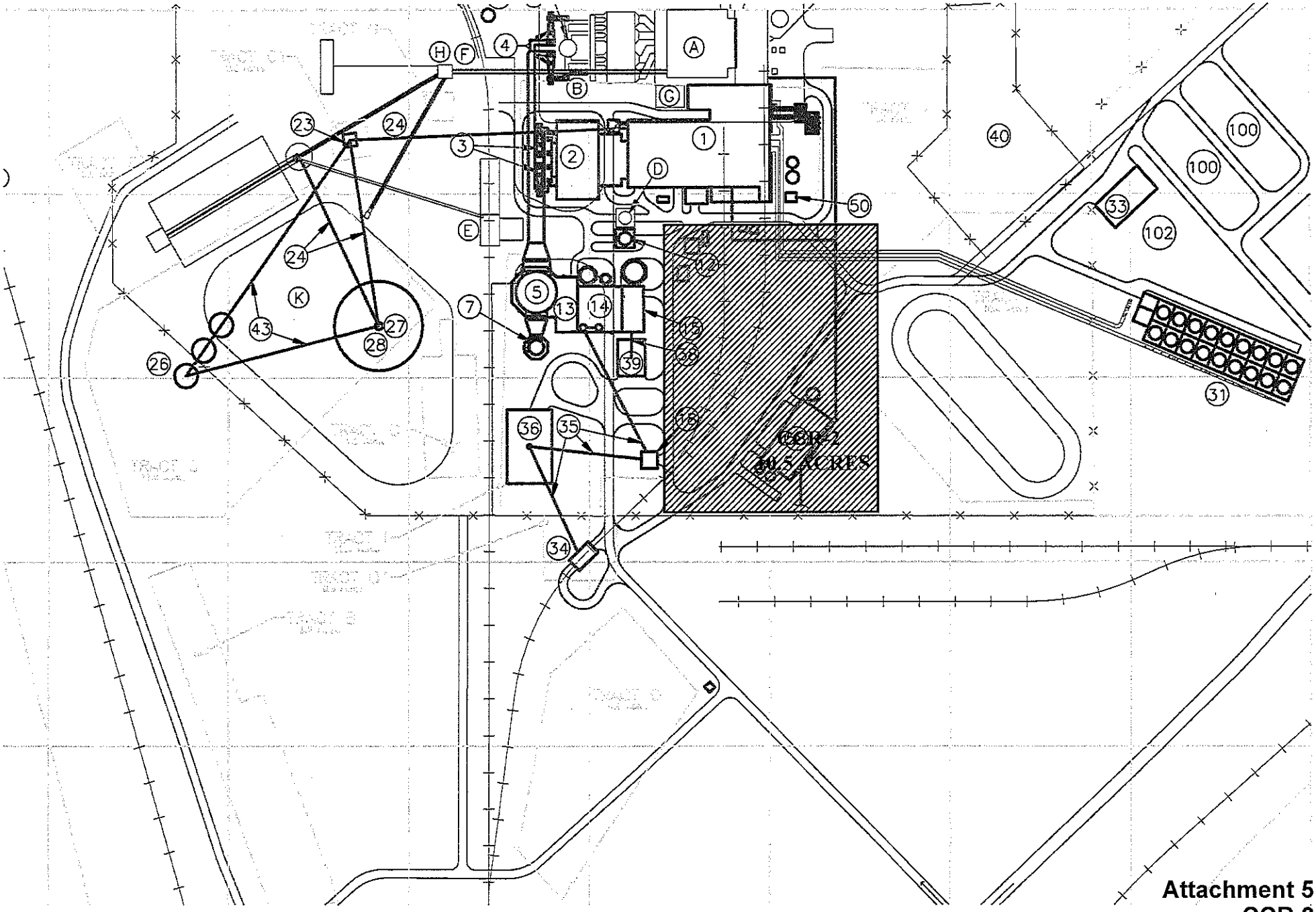
NOT TO BE USED FOR CONSTRUCTION



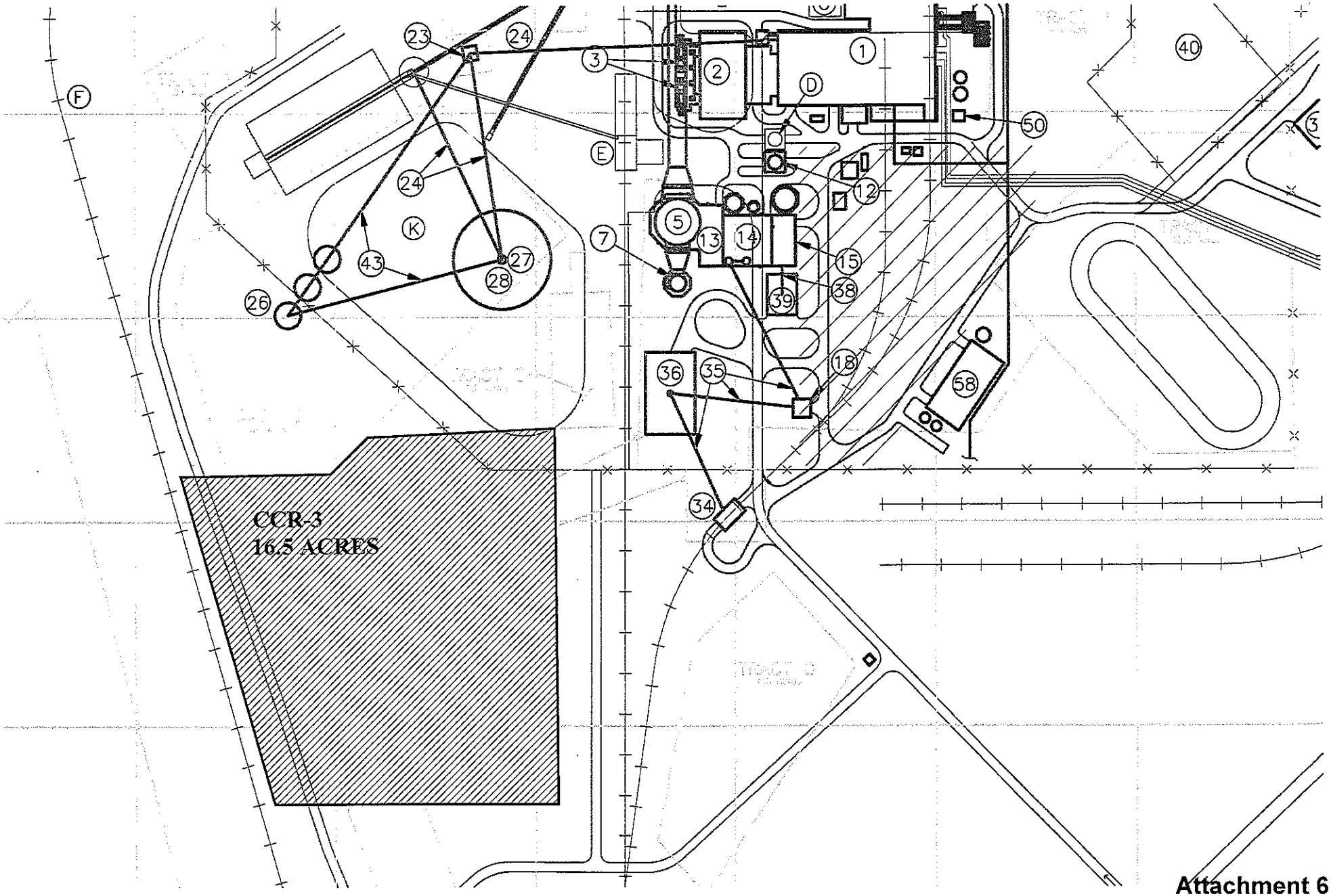
Attachment 3
Current configuration of Big Stone II site layout



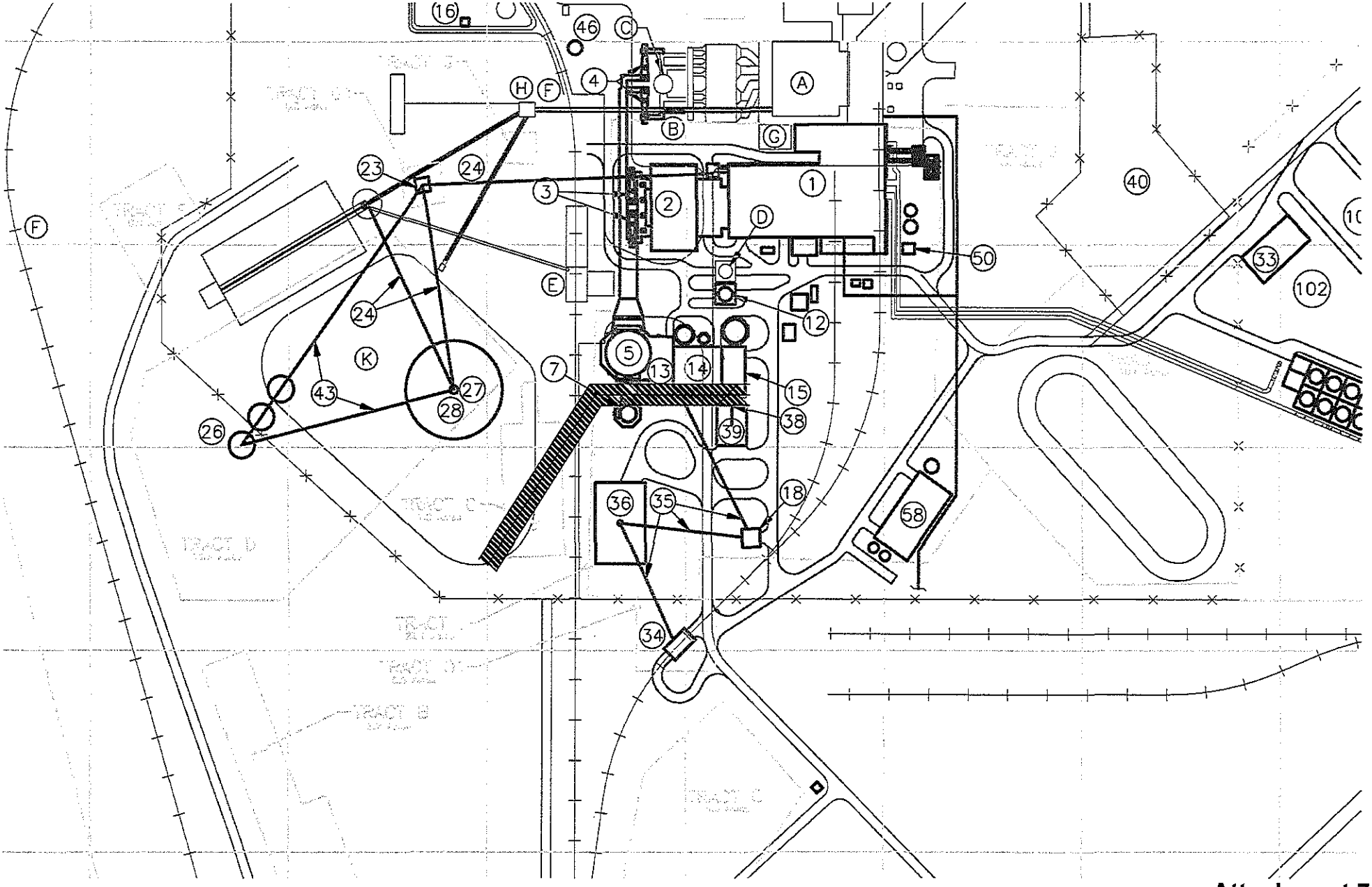
Attachment 4
CCR 1



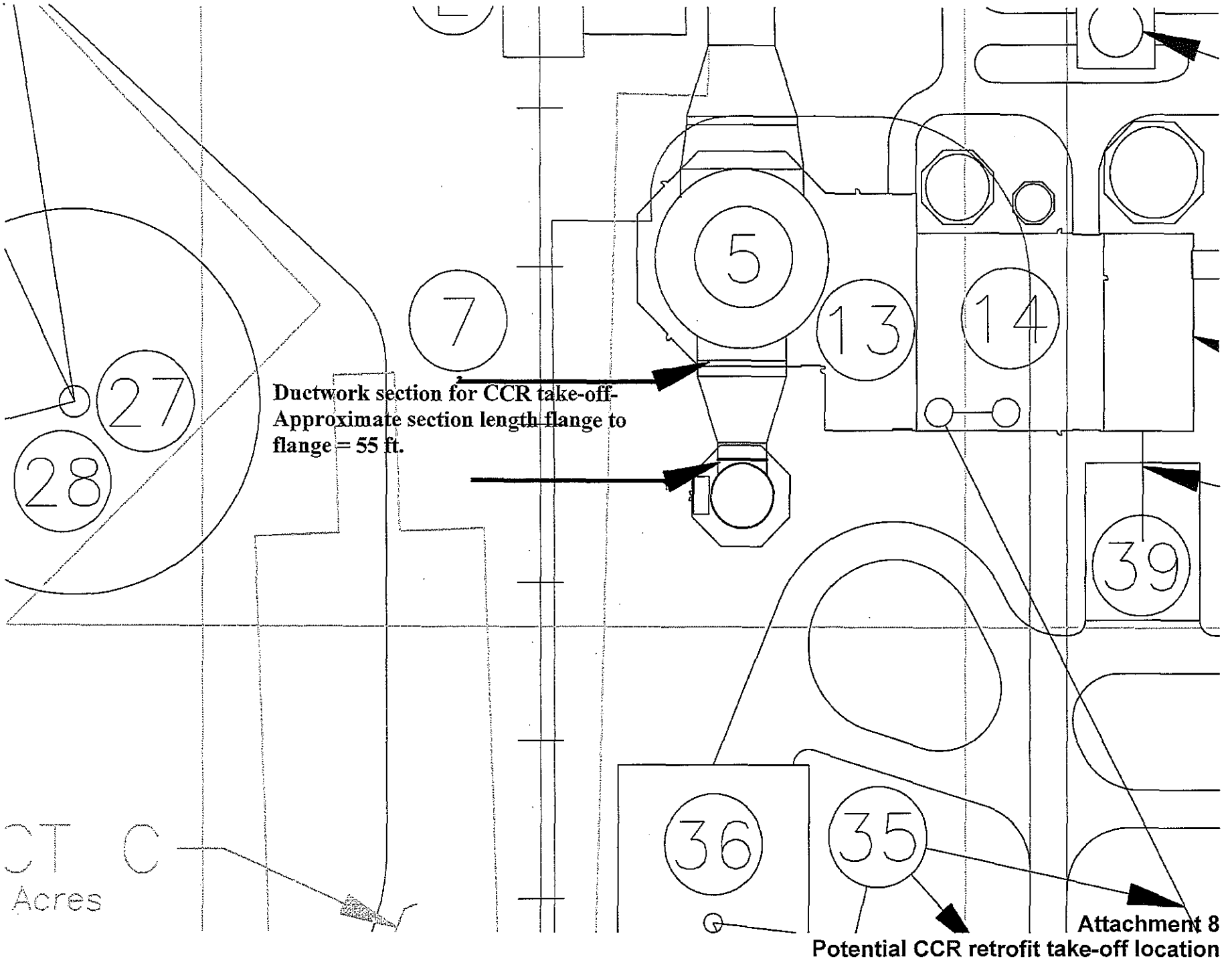
Attachment 5
CCR 2



Attachment 6
CCR 3



Attachment 7
Possible ducting configurations


Ductwork section for CCR take-off-
Approximate section length flange to
flange = 55 ft.
Attachment 8
Potential CCR retrofit take-off location