

CLAIRE M. EUBANKS, PE

PRESENT POSITION:

I am the Manager of the Engineering Analysis Department, Industry Analysis Division of the Missouri Public Service Commission.

EDUCATIONAL BACKGROUND AND WORK EXPERIENCE:

I received my Bachelor of Science degree in Environmental Engineering from the University of Missouri – Rolla, now Missouri University of Science and Technology, in May 2006. I am a licensed professional engineer in the states of Missouri and Arkansas. Immediately after graduating from UMR, I began my career with Aquaterra Environmental Solutions, Inc., now SCS Aquaterra, an engineering consulting firm based in Overland Park, Kansas. During my time with Aquaterra, I worked on various engineering projects related to the design, construction oversight, and environmental compliance of solid waste landfills. I began my employment with the Commission in November 2012 and was promoted to my current position in April 2020.

Currently, I am the co-chair of the NARUC Staff subcommittee on Electric Reliability & Resilience.

CASE HISTORY:

Case Number	Utility	Type	Issue
EA-2012-0281	Ameren	Rebuttal	Certificate of Convenience and Necessity
EC-2013-0379 EC-2013-0380	KCP&L KCP&L GMO	Rebuttal	RES Compliance
EO-2013-0458	Empire	Memorandum	RES Compliance Plan & Report
EO-2013-0462	Ameren	Memorandum	RES Compliance Report
EO-2013-0503	Ameren	Memorandum	RES Compliance Plan
EO-2013-0504	KCP&L	Memorandum	RES Compliance Plan & Report
EO-2013-0505	GMO	Memorandum	RES Compliance Plan & Report
ET-2014-0059	KCP&L GMO	Rebuttal	RES Retail Rate Impact
ET-2014-0071	KCP&L	Rebuttal	RES Retail Rate Impact
ET-2014-0085	Ameren	Rebuttal	RES Retail Rate Impact
ER-2014-0258	Ameren	Cost of Service Report, Surrebuttal	RES, In-Service

Case Number	Utility	Type	Issue
EO-2014-0151	KCP&L GMO	Memorandum	RESRAM
EO-2014-0357	Electric	Memorandum	Solar Rebates Payments
EO-2014-0287	KCPL	Memorandum	RES Compliance Plan
EO-2014-0288	GMO	Memorandum	RES Compliance Plan
EO-2014-0289	KCPL	Memorandum	RES Compliance Report
EO-2014-0290	GMO	Memorandum	RES Compliance Plan
ER-2014-0370	KCP&L	Cost of Service Report	RES
EX-2014-0352	N/A	Live Comments	RES rulemaking
EC-2015-0155	GMO	Memorandum	Solar Rebate Complaint
EO-2015-0260	Empire	Memorandum	RES Compliance Plan & Report
EO-2015-0263	KCPL	Memorandum	RES Compliance Report
EO-2015-0264	GMO	Memorandum	RES Compliance Report
EO-2015-0265	KCPL	Memorandum	RES Compliance Plan
EO-2015-0266	GMO	Memorandum	RES Compliance Plan
EO-2015-0267	Ameren	Memorandum	RES Compliance Plan & Report
EO-2015-0252	GMO	Staff Report	Integrated Resource Plan – Renewable Energy Standard
EO-2015-0254	KCPL	Staff Report	Integrated Resource Plan – Renewable Energy Standard
EA-2015-0256	KCP&L GMO	Live Testimony	Greenwood Solar CCN
EO-2015-0279	Empire	Memorandum	RES Compliance Plan & Report
ET-2016-0185	KCP&L	Memorandum	Solar Rebate Tariff Suspension
EO-2016-0280	KCPL	Memorandum	RES Compliance Report
EO-2016-0281	GMO	Memorandum	RES Compliance Report
EO-2016-0282	KCPL	Memorandum	RES Compliance Plan
EO-2016-0283	GMO	Memorandum	RES Compliance Plan
EO-2016-0284	Ameren	Memorandum	RES Compliance Plan & Report
ER-2016-0023	Empire	Report	RES
ER-2016-0156	KCP&L GMO	Rebuttal	RESRAM Prudence Review

Case Number	Utility	Type	Issue
EA-2016-0208	Ameren	Rebuttal	Certificate of Convenience and Necessity
ER-2016-0285	KCPL	Cost of Service Report	In-Service, Greenwood Solar
ER-2016-0179	Ameren	Rebuttal	In-Service, Labadie Landfill
EW-2017-0245	Electric	Report	Working Case on Emerging Issues in Utility Regulation
EO-2017-0268	Ameren	Memorandum	RES Compliance Plan & Report
EO-2017-0269	KCPL	Memorandum	RES Compliance Report
EO-2017-0271	KCPL	Memorandum	RES Compliance Plan
GR-2017-0215 & GR-2017-0216	Spire	Rebuttal & Surrebuttal	CHP for Critical Infrastructure
GR-2018-0013	Liberty Utilities (Midstates Natural Gas)	Rebuttal	CHP Outreach Initiative for Critical Infrastructure Resiliency
EO-2018-0287	Ameren	Memorandum	RES Compliance Plan & Report
EO-2018-0288	KCPL	Memorandum	RES Compliance Report
EO-2018-0290	KCPL	Memorandum	RES Compliance Plan
EA-2016-0207	Ameren	Memorandum	Certificate of Convenience and Necessity
ER-2018-0146	GMO	Cost of Service Report	RESRAM Prudence Review
ER-2018-0145 ER-2018-0146	KCPL GMO	Class Cost of Service Report, Rebuttal	Solar Subscription Pilot Rider, Standby Service Rider
EA-2018-0202	Ameren	Staff Report	Certificate of Convenience and Necessity
EE-2019-0076	Ameren	Memorandum	Variance Request – Reliability Reporting
EA-2019-0021	Ameren	Staff Report	Certificate of Convenience and Necessity
EA-2019-0010	Empire	Staff Report	Certificate of Convenience and Necessity
EX-2019-0050	N/A	Live Comments	Renewable Energy Standard

Case Number	Utility	Type	Issue
EO-2019-0315	KCPL	Memorandum in Response to Commission Questions	Renewable Energy Standard
EO-2019-0316	GMO	Memorandum	Renewable Energy Standard
EO-2019-0317	KCPL	Memorandum in Response to Commission Questions	Renewable Energy Standard
EO-2019-0318	GMO	Memorandum	Renewable Energy Standard
ER-2019-0335	Ameren	Cost of Service Report	Renewable Energy Standard, In-Service Criteria
EA-2019-0371	Ameren	Staff Report	Certificate of Convenience and Necessity
EO-2020-0329	Evergy Missouri Metro	Memorandum	Renewable Energy Standard
EO-2020-0330	Evergy Missouri West	Memorandum	Renewable Energy Standard
EE-2021-0237	Evergy Missouri Metro	Memorandum	Cogeneration Tariff
EE-2021-0238	Evergy Missouri West	Memorandum	Cogeneration Tariff
EE-2021-0180	Ameren Missouri	Memorandum	Electric Meter Variance
ET-2021-0151 and 0269	Evergy	Memorandum, Rebuttal Report	Transportation Electrification
AO-2021-0264	Various	Staff Report	February 2021 Cold Weather Event
EW-2021-0104	n/a	Staff Report	RTO Membership
EW-2021-0077	n/a	Staff Report	FERC Order 2222
EO-2021-0339	Evergy Missouri West	Memorandum	Territorial Agreement
GR-2021-0108	Spire	Rebuttal	Automated Meter Reading Opt-out Tariff
EA-2021-0087	ATXI	Rebuttal Report	Certificate of Convenience and Necessity
ER-2021-0240	Ameren Missouri	Cost of Service Report Rebuttal	In-Service Bat Mitigation

Case Number	Utility	Type	Issue
ER-2021-0312	Empire	Cost of Service Report	Construction Audit – Engineering Review, In-service
EO-2022-0061	Evergy Missouri West	Surrebuttal	Special Rate/ Renewable Energy Standard
EA-2022-0099	ATXI	Rebuttal	Certificate of Convenience and Necessity
EA-2022-0234	NextEra Energy Transmission	Rebuttal	Certificate of Convenience and Necessity
ER-2022-0129	Evergy Missouri West	Direct Rebuttal	Advanced Metering Infrastructure, Reliability, Transmission & Distribution Investment, PISA reporting, Misc. Tariff issues
ER-2022-0130	Evergy Missouri Metro	Direct Rebuttal Surrebuttal/True-Up	Advanced Metering Infrastructure, Reliability, Transmission & Distribution Investment, PISA reporting, Misc. Tariff issues
EE-2022-0329	Ameren Missouri	Memorandum	Variance Request
GR-2022-0179	Spire Missouri	Direct Rebuttal	Metering Infrastructure
ER-2022-0337	Ameren Missouri	Direct Rebuttal Surrebuttal/True-Up	Rush Island, Smart Energy Plan, High Prairie
EA-2023-0017	Grain Belt	Rebuttal	Certificate of Convenience and Necessity
ET-2023-0250	Empire	Memorandum	Cogeneration/ Net Metering Tariff
. GE-2023-0196	Empire District Gas Company	Memorandum	Variance Request
EO-2023-0423 EO-2023-0424	Evergy	Memorandum	Solar Subscription Program
EC-2024-0108	Ameren Missouri	Staff Report	Complaint

in order to give customers the full benefit of the plant and the economic power it could generate during peak periods.

3. AmerenUE is providing the following accounting treatment to monies expended to rebuild the Taum Sauk plant: AmerenUE books (debits) all incurred Taum Sauk upper reservoir reconstruction costs for a calendar month to the specific capital project 19481 (neither AFUDC nor corporate indirect overheads are applied to this work order) and transfers (credits) the entire amount booked to the reconstruction work order at the end of the month to Accounts Receivable account 20-143-002. Insurance recoveries are applied (credited) to the Accounts Receivable account as the insurance settlement proceeds are received.

4. AmerenUE will submit its accounting treatment to the Staff as follows:

The Company will send to the Staff its accounting treatment for the reconstruction of the Taum Sauk upper reservoir on a semi-annual basis on March 15 and September 15 of 2008 and 2009. Staff will be provided a summary of the expenses incurred, the transfers generated to move the reconstruction cost to Accounts Receivable and the insurance proceeds received and credited to the Accounts Receivable account (see the attached Appendix A). The charge-level detail will be available if required.

AmerenUE will also be installing equipment and constructing facilities not related to the reconstruction of the upper reservoir. These projects were deferred from previous years pending the rebuild approval or added as plant improvements or replacements. AmerenUE will not be submitting data related to these projects. These projects will be subject to normal rate case proceedings.

5. AmerenUE will provide a single, on-site supervising engineer at each generation plant who is assigned to oversee all engineering projects at that facility. The supervising

engineer shall report to the plant manager, but will have the obligation to report any unresolved safety issues to the AmerenUE safety officer responsible for the facility. The AmerenUE Project Management Manual has been revised to reflect this change, as set forth in Appendix B [see the bottom of page 2 titled “On-site Supervising Engineer or Manager (Superintendent or equivalent)”]. The revision will be implemented within ninety (90) days of this filing.

6. AmerenUE will implement an Employee Concerns Program, whereby employees may report safety concerns and other concerns to the Vice President of Power Operations. The Employee Concerns Program is set forth in Appendix C. AmerenUE will provide semi-annual reports to the Staff of any employee concerns reported. This program will be implemented within ninety (90) days of this filing.

7. AmerenUE has designated three separate safety officers for its system: Mark Birk for non-nuclear generation, Adam Heflin for nuclear generation and Ron Zdellar for transmission and distribution facilities.

WHEREFORE, AmerenUE respectfully submits this plan for implementing Staff’s recommendations that it agreed to adopt.

Respectfully submitted,

UNION ELECTRIC COMPANY,
d/b/a AmerenUE

By: Thomas M. Byrne

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Dated: March 5, 2008

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document was served via electronic filing with the Missouri Public Service Commission and via electronic mail (e-mail) on this 5th day of March, 2008 to:

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Thomas M. Byrne

Thomas M. Byrne

Case No. EF-2024-0021

SCHEDULE CME-r2

Pages 5 through 25

HAVE BEEN DEEMED

CONFIDENTIAL

IN THEIR ENTIRETY

Case No. EF-2024-0021

SCHEDULE CME-r3

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

AmerenUE Environmental Compliance Strategy Analysis – Kick-off Meeting

May 24, 2007

Attendees:

Tony Artman	Price Marr	Rick Voytas
Mark Birk	Bob Neff	Dennis Weisenborn
Darrell Hughes	Bob Powers	Steve Whitworth
Ned Kammerer	Rick Smith	

Mark Birk called this meeting to kick off the AmerenUE environmental compliance strategy analysis. The agenda is attached. Mark asked the Corporate Planning Department to coordinate the analysis with the assistance of the various subject matter experts in attendance. He described the importance of performing this analysis in the near term and suggested the analysis likely be revisited on an annual basis. He also emphasized the importance of documenting all work.

Generation Technical Services then reviewed the current environmental compliance plan for AmerenUE air emissions. There is some flexibility in how AmerenUE handles NO_x and SO₂ controls but very little for mercury. It is important to try to avoid contaminating flyash with mercury to avoid adding to landfill requirements. The current scrubber schedule is:

- Labadie – two by 1/1/15 and two more by 1/1/17
- Meramec – no plans to scrub
- Rush Island – two by 1/1/13
- Sioux – two by Fall 2009 (GTS is investigating whether it is possible and more economic to advance the schedule to Spring 2009)

Other emission controls and related plans include:

- SCRs on Meramec 3 & 4 by 1/1/15
- Mercury CEMS and controls on all units by 1/1/09 and 1/1/10, respectively.
- New landfills at Labadie, Meramec, Rush Island and Sioux
- 316B jobs for all intakes

Environmental Services then reviewed the possible environmental regulations beyond CAIR and CAMR. These include:

- Potential for 114 action in Region VII
- PM_{2.5}
- Possible reduction in ozone standard
- Carbon emission control requirements
- Challenge to CAMR – cap & trade vs. MACT

The discussion next covered parameters for the study. These include capital costs, operating costs, removal efficiencies and timing for scrubbers, fueling assumptions, allowance price forecasts, mercury co-benefits of scrubbing and incremental CO₂ emissions from scrubbing. The source of the allowance price forecasts will be CRA International, which is supporting ongoing integrated resource planning work for AmerenUE. It was suggested that a fuel budget run be made using these allowance prices.

The discussion of study parameters overlapped into a discussion of sensitivity analyses. Sensitivities identified by AmerenUE for this study include capital and operating costs, removal efficiency, allowance prices, alternative fueling assumptions, retirement of Meramec Plant, impact of a possible new coal unit and improved NO_x performance at existing plants. It was suggested that a scenario which considered the impact of a New Source Review violation finding be analyzed. Corporate Planning agreed to work with Legal to review this issue. Legal will provide their views on this possibility to AmerenUE for their consideration. Based on that information AmerenUE will provide the team direction on whether additional analysis is to be performed. There was a lengthy discussion comparing wet scrubbing to dry scrubbing. A key advantage of wet scrubbing is fuel flexibility, while a disadvantage is higher capital cost. We will quantitatively analyze both technologies. There was discussion of potential problems at Labadie related to heat rejection to the Missouri River and the possibility that cooling towers would have to be installed.

Project payback was discussed, with Corporate Finance suggesting that AmerenUE challenge itself to try to meet a 5-6 year payback rather than a 10-20 year payback.

The discussion moved on to alternative compliance strategies and how the existing AmerenUE SO₂ allowance bank could be utilized. It was suggested that AmerenUE might sell SO₂ allowances to fund scrubber builds. Corporate Finance will follow up on this question to determine if the recent rate order would allow this and whether that is a viable strategy. It was agreed that all compliance plans will include two scrubbers at Sioux. Alternative plans will include various levels of SO₂ allowance purchases and scrubber installations. It was noted that the key metric for AmerenUE in choosing the preferred environmental compliance plan was the minimization of revenue requirements while being in compliance with all environmental regulations.

At the end of the meeting, the study schedule was discussed to come up with workable time frames for data development and analysis. Based on input from the various groups in attendance, Mark Birk suggested the following schedule:

- Input data provided to Corporate Planning – June 22, 2007
- Initial results from analysis for discussion with team – July 6, 2007
- Revised analysis and final report for AmerenUE – July 20, 2007

The meeting concluded with a review of data development responsibilities:

- Ameren Fuels & Services will provide alternative fueling assumptions, delivered coal costs, and sulfur content to Generation Technical Services and Corporate Planning by the middle of June (when it will receive Illinois coal bids from a recently issued RFP).
- Generation Technical Services will provide construction cost, operating cost, removal efficiency, installation timing and mercury co-benefit inputs.
- Corporate Planning will obtain emission allowance price forecasts from CRA.
- Corporate Finance will review project timing for capital constraints issues and will look into the possibility of selling SO₂ allowances to fund scrubber builds.
- Supply Services will review project timing for reasonableness with respect to materials and labor sourcing issues.

Message

From: Artman, Anthony J [/O=AMEREN/OU=GOB/CN=RECIPIENTS/CN=B5FA8417]
Sent: 6/11/2009 8:46:13 AM
To: Knowles, Susan B [SKnowles@ameren.com]
Subject: NSR mentioned during our Environmental Briefing to MO Stakeholders in Jeff City yesterday

Susan,

Yesterday afternoon representatives from UE and Ameren Services met with MO stakeholders in the IRP process and provided them with an environmental compliance strategy briefing. Mike Menne presented all the environmental regulatory issues that were out there. Mark Birk presented UE current environmental compliance strategy based on the current CAIR regulations and likely MACT mercury requirements. For mercury he told them UE was planning to install ACI at Labadie, RI and Meramec by 2014 and use fuel additive at Sioux beginning in 2014. They are assuming that will result in 90% removal and would meet the MACT requirements. He told them that they planned to install not NOx control technology and only complete the scrubbers at Sioux for SO2 control technology. They would use their allowances to extend out as far as possible and then buy allowances. He also showed some the economics of plans which included scrubbers at Labadie and Rush Island. The Missouri Office of Public Counsel (OPC) asked Mark why would they ever consider advancing the timing on scrubbers or installing scrubbers based on these results. Mark then used the 114 inquiry as an example of what might cause us to install scrubbers as early as 2013. Then questions came up about the 114 inquiry. Mark explained what was going on and Mike added a few comments. After the meeting was over Mark then approached OPC with the idea of maybe supporting us in the process if it came to forcing us to install scrubbers and possibly lose our allowances. They seemed to be receptive to the concept.

If you want to talk about this sometime let me know.

Tony Artman



Fuel Risks

Business Risk Management Discussion

Audit and Risk Committee Meeting

August 7, 2008

Mike Mueller

Bob Neff

Scott Glaeser

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STAFF 11 000664

Coal situational assessment – Framing the issues

- Ameren’s fuel strategy is primarily based on the use of Powder River Basin coal
 - Converted plants as fast as possible from Illinois basin coal to lower cost PRB coal
 - Created competitive transportation options between the two western rail carriers to obtain rate reductions from western carriers, who were aggressively competing for new PRB business
 - Established a diverse pool of PRB coal supply contracts to draw from
- The PRB based fuel strategy has worked well for Ameren
 - Lower fuel cost than many neighboring utilities, benefiting power sales and capacity factors
 - PRB conversion provided key savings in CIPS and CILCO acquisitions
- Changing coal markets have diminished, but not altered, the fundamental value of the PRB strategy for uncontrolled plants
 - Two western carriers decided to stop competing for PRB business among existing customers, effectively carving up the market
 - Consolidation in the PRB coal producers has reduced major PRB mining companies from 4 to 3

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Coal situational assessment – Framing the issues

- Ameren is also entering into a new phase of fuel decisions, driven by emissions regulations, new source review requirements, and climate change
 - Eventual implementation of CAIR rules and Illinois consent decree will require SO₂ controls (scrubbers) and NO_x control (SCR, urea, etc.)
 - Recent court decision overturning CAIR rules could impact these requirements
 - NSR discussions continue and would be affected by recent court decisions
 - Climate change legislation could significantly impact our existing coal and contractual agreements in the future
- To address these uncertain requirements, the need to build in fuel flexibility will need to be carefully weighed against the cost of that flexibility
- Ameren's future fuel strategy must address the changing commodity, transportation and environmental regulatory environments
- This strategy will likely need to be more segment/plant specific, employ a broader set of risk mitigation tools, and will encompass appropriate flexibility to respond to uncertain environmental regulations

Ameren Missouri's
Response to MPSC Data Request - MPSC
ER-2022-0337

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust Its Revenues
for Electric Service

No.: MPSC 00198.5

On November 30, 2021 MISO submitted proposed revisions to its Open Access Transmission, Energy and Operating Reserve Markets Tariff to establish Resource Adequacy Requirements on a seasonal basis for each of the Summer, Fall, Winter and Spring Seasons, and to implement an availability-based Seasonal Accredited Capacity (“SAC”) methodology for resources participating in MISO’s annual Planning Resource Auction (“PRA”). (a) Please identify the Seasonal Resource Adequacy Hours for PRA Zone 5 each season based on either information received from MISO, or Ameren-internal calculations, including workpapers. (b) Please identify the Annual Resource Adequacy Hours for each season for PRA Zone 5 based on either information received from MISO, or Ameren-internal calculations, including workpapers. (c) Please provide the Annual Average Offered Capacity for each Ameren Missouri resource subject to MISO Schedule 53. (d) Please generally describe the capacity position of Zone 5 by season and annually. (e) Please provide a copy of all internal presentations, briefings, or emails prepared to describe the effect of the promulgation of the referenced addition to the MISO OATT on Ameren Missouri. (f) Please provide a copy of all presentations, briefings, or other documentation provided by MISO or the OMS to Ameren Missouri concerning the effect of the promulgation of the referenced addition to the MISO OATT on Ameren Missouri. Data requested by Sarah Lange (sarah.lange@psc.mo.gov <<mailto:sarah.lange@psc.mo.gov>>)

RESPONSE

Prepared By: Andrew Meyer

Title: Sr. Director Energy Management & Trading

Date: 11.03.2022

A & B. MISO provided an initial release of both the seasonal and annual RA hours in the document linked below and attached file 'MPSC 00198.5 Initial RA Hours 20220929626468 (version 1)'. The data provided by MISO does not specify hours by Local Resource Zone. MISO specifically noted that "(t)his dataset is not final and subject to revision. The dataset should be considered indicative for discussion purposes."

<https://cdn.misoenergy.org/Initial%20RA%20Hours%2020220929626469.xlsx>

C. The Company is assuming the request is forward-looking, with the anticipated accreditation values for Ameren Missouri resources under the new SAC methodology. Please

refer to attachment 'CONF MPSC 00198.5 Working_AmerenMO_Capacity_Report', in which the Company has attempted to model future seasonal positions. These SAC values are subject to change, as MISO will not publish final 2023/24 SAC values until later this year. The accreditation values in this model are based on information provided by MISO, and not necessarily independently modeled by the Company.

D. Ameren Missouri does not make up the entirety of Zone 5. Speaking specifically of Ameren Missouri's anticipated seasonal positions, which include resources and load obligations distributed in both Zones 4 and 5, the positions vary significantly by season. The annual position, calculated under the historic MISO capacity construct, would be very similar to the Summer seasonal position. As indicated in the capacity report file referenced in part C, the Company is initially projecting a long capacity position in the Summer 2023 season of 1,368MW. Note that the Summer Planning Reserve Margin (PRM) is 7.4%. The Fall 2023 long position of 895 MW is impacted by its seasonal resource accreditation and higher PRM of 14.9%. The Winter and Spring PRMs are notably higher at 25.5% and 24.5%, respectively. These higher PRMs, along with accreditation impacts, result in a forecasted short Winter 2023-24 capacity position of -471MW. The Company's Spring 2024 position is forecast to be long 1,055MW.

Again, this is an initial working calculation which will change when final MISO data is received.

E. Please see attached presentations:

- MPSC 00198.5 MPSC EO-2022-0215 OTR Final, which generally speaks to seasonal capacity positions. It is important to note that this presentation was developed before the indicative 2023-24 seasonal Planning Resource Margins (PRMs) were published by MISO – and those PRMs for Fall, Winter, & Spring were significantly higher than the Company's original estimates included in the presentation..
- MPSC 00198.5 Seasonal Capacity Construct
- MPSC 00198.5 Seasonal Capacity Filing Approval

Also included are the Company's filed comments to FERC regarding MISO's Seasonal filing. 'MPSC 00198.5 20220114-5185 Ameren Comments to ER22-495 Seasonal Accreditation'.

F. Please see attached files provided by MISO to the Company. First is the publicly-available design document, which is available on the MISO website <https://cdn.misoenergy.org/20211201%20RASC%20Updated%20Seasonal%20RA%20Conceptual%20Design%20Document619550.pdf>.

The second file, 'MPSC 00198.5 amerenmissouriupdated', is the tentative Ameren Missouri SAC accreditation values, as provided by MISO. These values were used in the position modeling file. The Company has not yet attempted to validate these accreditation values using availability during RA hours, nor attempted to model the application of outage exemptions.

Ameren Missouri EO-2022-0215

August 17, 2022



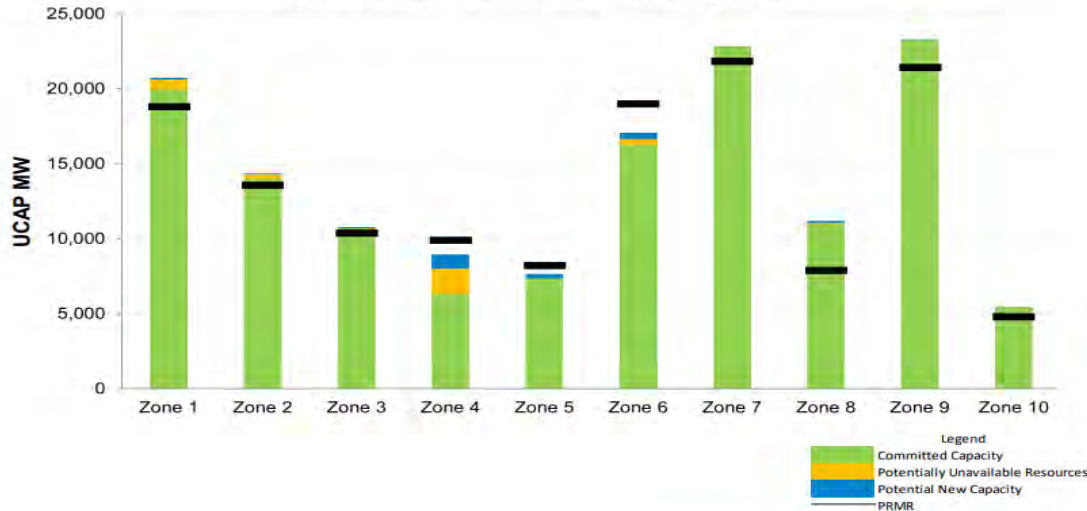
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2022 OMS-MISO Survey

“...the issue of securing capacity, both in terms of planning obligations ahead of time, as well as meeting real time load obligations...”

Capacity shortages shown in 2022 PRA are reflected in the 2023 survey zonal outlook

2022 OMS MISO Survey PY 2023/24 By Zone



- **Ameren Missouri demonstrated sufficient capacity in the OMS Survey and in recent PRA.**
- Ameren Missouri load is in Zone 5; Missouri. However, owned resources are across Zones 4 and 5; Illinois and Missouri.
- The five CTG sites in IL total 1,739 MW of installed capacity. This translated to 1,371.1 MW of UCAP participating in the recent MISO PRA.
- These IL CTGs are pseudo-tied to Missouri. If reflected as such, Zone 5 would be sufficient and Zone 4 increasingly short.

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Capacity Position Modeling

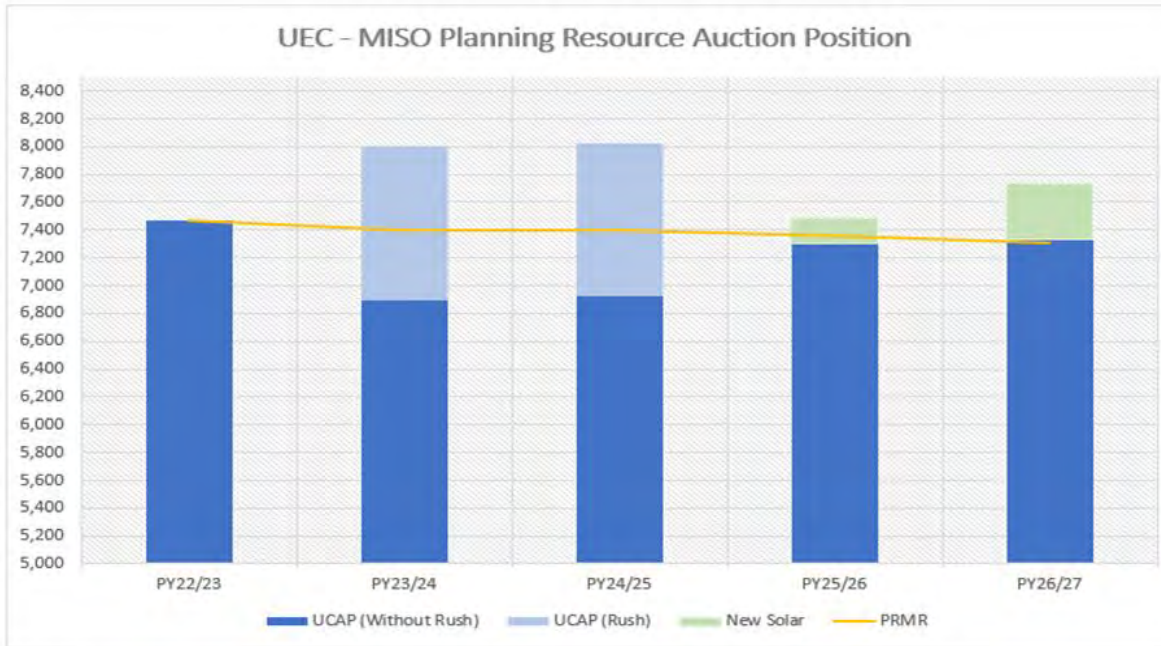
“...the issue of securing capacity, both in terms of planning obligations ahead of time, as well as meeting real time load obligations...”

Key Considerations of MISO Planning Resource Auction (PRA) position:

- MISO Capacity Accreditation Differs from IRP Modeling.
 - The IRP utilizes Installed Capacity, with some availability reductions, to achieve a consistent long-term perspective. The MISO process is less stable, as available capacity is annually adjusted based on 36-month prior operating performance.
- Ameren Missouri’s position in the MISO capacity auctions, after Rush Island units retire, will be very near flat. If accreditation for existing resources falter, or new renewable resources are not commercially operable, a short position may develop.
- Strategy for procuring any necessary capacity would be determined after final position modeling and consultation with the Independent Market Monitor (IMM).

Ameren Missouri Position - MISO Planning Resource Auction

“...the issue of securing capacity, both in terms of planning obligations ahead of time, as well as meeting real time load obligations...”



- Assumes Rush Island will be online as an SSR through Spring 2024.
- Utilization of RIEC units for MISO PRA purposes is subject to IMM discretion.
- These UCAP values assume recovery of Callaway accreditation and include proposed renewables.

Real Time Load Obligations & Stressor Events

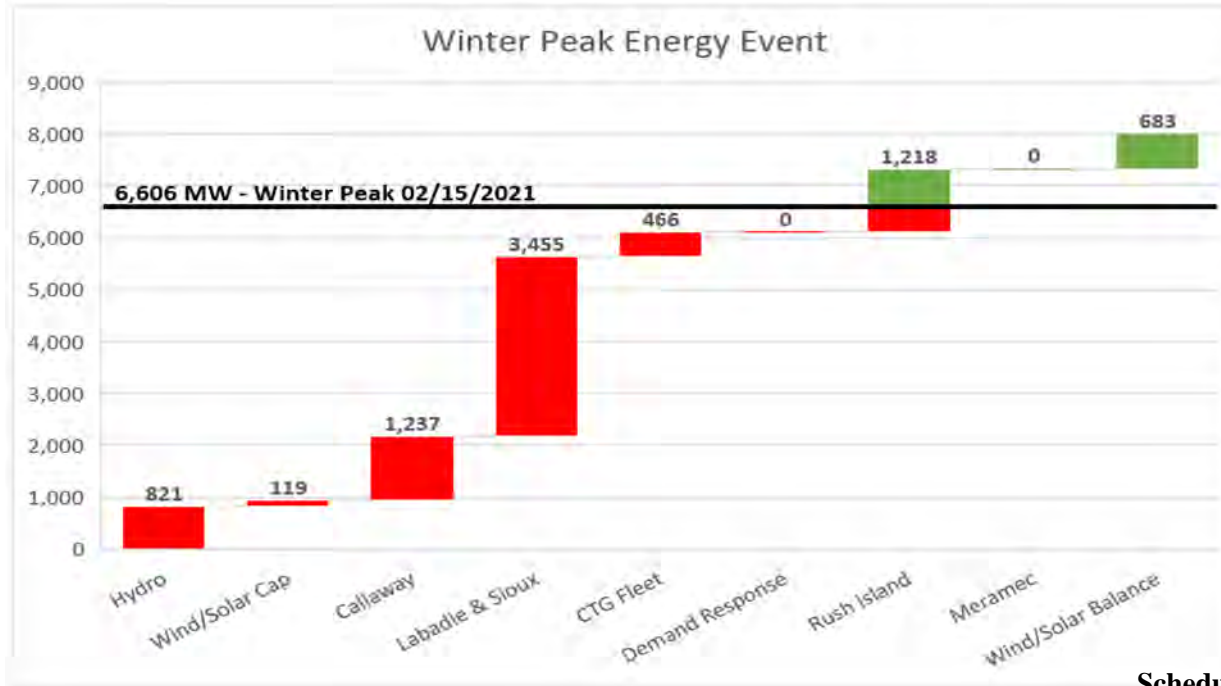
“...the issue of securing capacity, both in terms of planning obligations ahead of time, as well as meeting real time load obligations...”

Ameren Missouri Proactive Actions Include:

- Risk-based major outage schedule for baseload units
- Pre-summer and Pre-winter readiness meetings with Energy Centers
- Year-round active monitoring of river conditions to anticipate potential issues such as high & low levels, high temperatures, ice jams, etc.
- Daily tracking and analysis of weather, electric loads, and MISO system forward forecasts to proactively identify system conditions.
- Internal conservative ops indications – stoplight system described in Winter storm Uri docket
- Coordination & compliance with MISO Emergency notifications and procedures

Winter Peak Demand

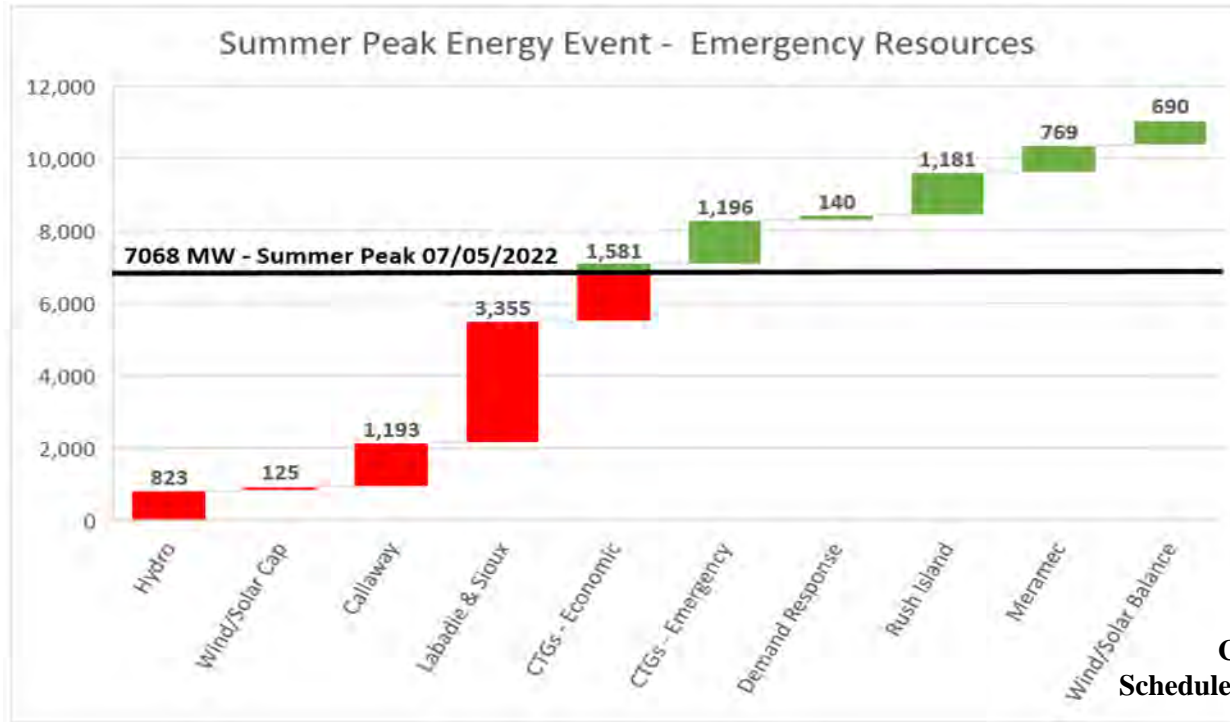
“...strategies it will undertake to meet its load in the event of a stressor event in the foreseeable future...”



- During Winter Storm Uri, hourly retail load reached 6,606 MW. If a similar event occurs in next two winters, resources will be stressed, but sufficient.
- CTG winter availability reduced due to anticipated pipeline restrictions
- Ameren exploring options to address winter supply, post-RIEC closure.

Summer Peak Demand – with ‘Emergency’ Resources

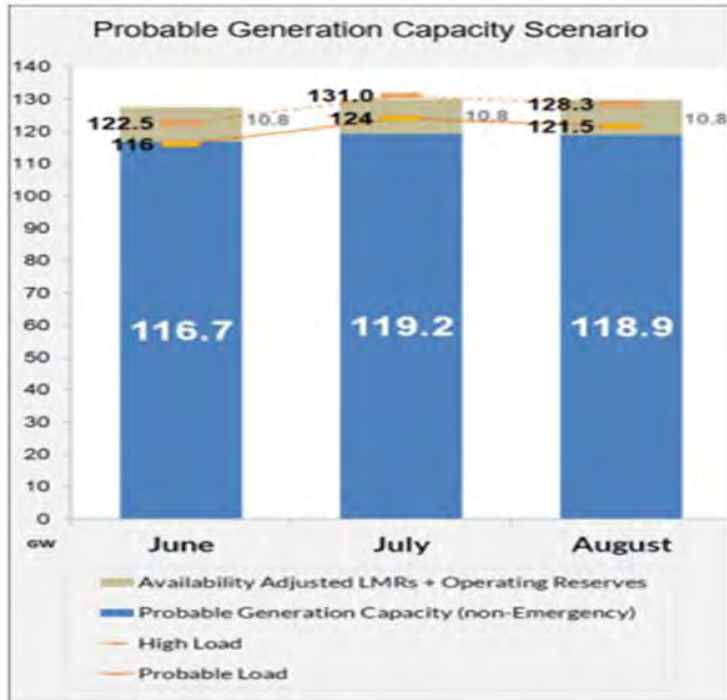
“...strategies it will undertake to meet its load in the event of a stressor event in the foreseeable future...”




- On July 5th temps reached 101 degrees, setting a post-Noranda retail load peak.
- The IL CTG fleet has emissions restrictions from the IL Clean Energy Jobs Act. Runtime hours are reserved for Emergency conditions.
- Demand Response programs run May – September.
- No pipeline restrictions.

2022 Summer Readiness

“... in the event of a stressor event in the foreseeable future on both its system and MISO’s system.”



- When MISO system loads reach the forecasted peaks, Emergency resources and non-firm energy imports are projected to be needed to maintain system reliability.
- These Emergency resources include Demand Response, expanded operating limits for generation, and availability-constrained resources, such as Ameren Missouri’s IL CTG’s.
- MISO’s Maximum Generation Emergency Operating Procedure dictates the actions necessary, with firm load shed being the final step.

A close-up photograph of a hand adjusting a modern, metallic light fixture. The fixture has a circular, ribbed shade and a curved handle. The background is softly blurred, showing a person's face in profile, looking towards the light fixture.

**MISO Seasonal Capacity Filing
Highlights – March 2022**

**Case No. EF-2024-0021
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Summary

Transitioning to a MISO Seasonal Capacity Market

- Currently, MISO LSE's must procure capacity to meet their forecasted annual summer peak (+ a ~8% reserve margin) in order to demonstrate "Resource Adequacy" for the full Planning Year.
- Under a Seasonal Construct, LSE's must procure capacity to meet each of their four SEASONAL peaks

Three primary next steps for RA reform:



Sub-annual construct: Change from current annual summer-based construct to four distinct seasons

Outcomes: (1) Identify reliability needs unique to each season (2) Align resource availability with seasonal needs (3) Facilitate seasonal outages or partial year operations



Improved accreditation: Align resource accreditation with availability in the highest risk periods

Outcomes: (1) Increase confidence in capacity that MISO can count upon (2) Provide improved signals for availability and coordination (3) Improve outage coordination processes



Minimum capacity requirement: Require at least 50% of capacity to be secured for each Load Serving Entity (LSE), prior to the Planning Resources Auction (PRA)

Outcomes: (1) Support MISO reliability with the changing risk profile and lower excess reserve margins (2) Reinforce a fundamental assumption that all LSE are appropriately planning

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Resource Accreditation Changes

Unforced Capacity (UCAP) Out, Seasonal Adjusted Capacity (SAC) In

- Currently, a Resource is accredited by taking GVTC test generation volume x (1-EFORd) = UCAP
ex. 100mw GVTC x (1 - .18 EFORd) = 82mw UCAP
- Under Seasonal, a Resource is accredited by taking its historical hourly availability during tight and non-tight hours, and establishing an 80/20 weighted SAC accreditation
ex. 64mw in tight hrs, 100 in non-tight hrs
(64mw x .8) + (100mw x .2) = 71.2mw SAC
- This is done for each resource for each season
- Tight hours are defined on the next slide

Tier 2 “Tight” Hours

Availability During Tier 2 Hours Determines 80% of Resource Accreditation

Seasonal Tier 2 tight condition hours are defined across the year based on retrospective tight supply time periods and MaxGen event hours

RA hours are defined as tight margin hours and emergency hours over four historical planning years

- $\text{Margin (\%)} = \frac{\text{online margin} + \text{offline margin (24-hour lead time)}}{\text{Real-Time (RT) load}}$
- Tight margin hours (RA hours) are selected through the following process for Central+North and South separately:
 - (1) MaxGen hours automatically become RA hours
 - (2) For each season in each Planning Year, supplement number of RA hours to 3% of hours in each season (65 hours)
 - (3) Exclude **hours if margin is greater than 25%**. Therefore, some seasons will have less than 65 hours **cells highlighted below**

Sample Calculation						Central + North					South				
Planning Year	Summer	Fall	Winter	Spring	Total		Summer	Fall	Winter	Spring	Total				
2018-2019	65	65	54	4	188		65	65	15	65	200				
2019-2020	65	49	0	0	114		65	65	7	2	139				
2020-2021	65	19	65	37	186		65	65	100	28	258				
Total	195	133	119	41			195	195	112	95					

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When There aren't Enough Tier 2 Hours in a Season

A Point of Contention Among Stakeholders

- The number of RA hours may vary during individual seasons when the 25% maximum margin is applied or individual resources receive outage exemptions, impacting sample sizes and resulting accreditation calculations
- In these cases, small sample sizes could impact accreditation, overstating or understating expected availability and introducing volatility
- If RA hours for a season for a Planning Year fall below the 3% target (65 hours), then the data will be supplemented for the deficient number of hours, with the Annual Average Offered Capacity for the annual RA hours defined as the tightest 3% margin hours of for the Planning Year
 - The Tier 2 portion of the accreditation will be based on tightest hours of the year by determining annual resource adequacy hours and calculating Annual Average Offered Capacity during the tightest 3% margin hours of the year for each resource

- This idea is unpopular among stakeholders, as it could result in a resource being accredited in Spring, for example, using availability data from a completely different season.

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Historical Availability Means That All Types of Outages are Considered

Planned Outages Now Affect Capacity Accreditation

- While Planned Outages certainly affect availability, if an outage is planned more than 120 days in advance, during a stretch of time in which MISO's Maintenance Margin is positive, a Resource may be eligible for an exemption, hence not affecting capacity accreditation.

	Maintenance Margin ≥ 0 for duration of outage	Maintenance Margin < 0 for any day in the duration of outage	Tier Exemption
>120 days, no outage in previous 120 days	Exempt Tier 1 & 2	Exempt Tier 1 Only	Tier 1 & 2 (Full) Tier 1 Only (Partial) No Exemption
>120 days, outage in previous 120 days, or between 30-119 days	Exempt Tier 1 Only	No Exemption	
14-30 days and no harm*	Exempt Tier 1 Only	No Exemption	
Outage moved per MISO request	Full Exemption (weather, forced, conditions in BPM- 008 section 4.3) Rescheduled to a better margin	N/A	

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Capacity Replacement Requirement

Planned Outages Scheduled for longer than 31 Days

- A cleared Resource with a Planned Outage scheduled longer than 31 days within a Season, must replace capacity for each outaged day beyond the 31st day.
- This rule has been heavily contested by stakeholders, as it assumes a liquid market for replacement capacity, which barely exists in the annual construct today.
- Other concerns around “outage gaming” and “auction offer inflation,” have surfaced during the development of this requirement.

Ameren Missouri Impacts

Expectations Under a Seasonal Construct

ANNUAL

- Under the Summer-peaking Annual Construct, Ameren Missouri historically served ~7500mw of capacity demand, and was accredited ~9000mw of UCAP supply.
- The additional ~1500mw was either sold bilaterally to other Load Serving Entities or offered to MISO through the annual Planning Resource Auction, contributing \$5-\$10million per year in OSS capacity revenue.

SEASONAL

- OSS capacity revenue will likely be reduced to zero with the retirement of Meramec 1-4 and Rush Island 1-2.
- Winter CTG capacity accreditation will be greatly reduced under the SAC rules, since the bulk of the fleet is unavailable during cold weather.
- In summary, under a Seasonal Construct, Ameren Missouri is likely to be accredited less supply, but also be responsible for serving reduced loads, especially in Fall, Winter, and Spring. In any case, EM&T will be managing its capacity position season to season, as opposed to making forward sales.

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FERC Issues Deficiency Notice on MISO's SAC Filing

RTO Insider Reported on FERC's Areas of Concern

1. MISO should provide quantitative evidence that demonstrates historical performance of units is more indicative of future performance than the existing UCAP method.
2. MISO should explain why it didn't apply historical availability treatment to wind and solar.
3. MISO should fully explain its requirement that units replace their cleared capacity that's on outage beyond 30 days when there is a requirement for a 120-day period between a unit's planned outage.
4. MISO should report on the health of the bilateral capacity market in support of the 50% Minimum Capacity Obligation.
5. Other various concerns were voiced.

What is changing?

- MISO is implementing a seasonal capacity product; ditching the annualized capacity product approach
- Planning reserve margins (demand) will differ season by season

Why & How?

- Resource adequacy concerns have shifted away from 'summer-only' to now, year-round concerns
 - The old structure was based on 'Summer Coincident Peak Demand forecasts'
- MISO has declared 40 MaxGen events (i.e. times of extreme stress on the grid, all available units are in use, completely curtailed non-firm exports, generators instructed to start off-line units, etc) with **more than 60% occurring outside of the Summer months** (see table below)



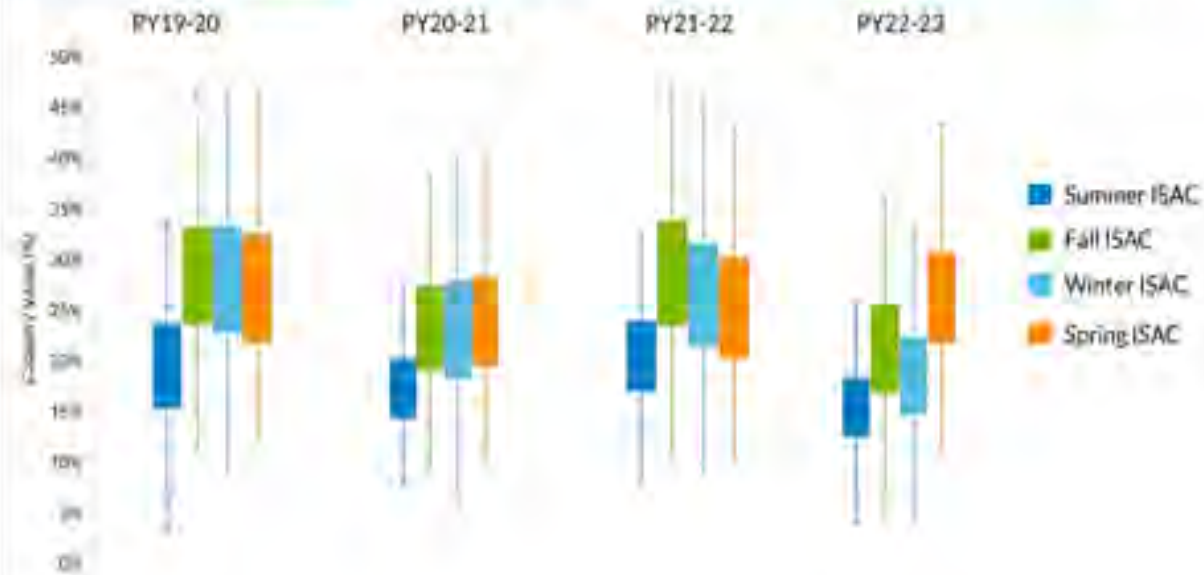
- MaxGen events shifting away from summer due to baseload generation retirements, increasingly severe/unpredictable weather causing forced outages like arctic blasts, polar vortexes, etc.

- Thermal resources will be awarded capacity values by season; based on availability
 - Same for Demand Response resources
- Availability-based accreditation methodology– based on historic offers in the MISO DA/RT market
 - Formerly, thermal capacity was calculated as: installed capacity adjusted by forced outage rate
 - It will be a weighted tier structure– where historical availability/offers during ‘RA hours (i.e. high risk hours) are weighted more heavily than availability during normal conditions
 - RA hours are the highest risk hours in any given season
 - MISO is aiming for a 65 hour target that would include any historic maxgen events + remaining hours with tightest operating margins (capped at a max operating margin of 25%)
 - 65 hours = riskiest 3% of hours of the season
 - Any season can be more or less than 65 hours– let’s say if duration of max gen events one winter exceeds 65 hours; or less, given the cap of 25% operational margin
 - RA hours = ‘tier 2 hours’; all other hours are considered tier 1
 - Over the next three planning years– we will ease into the tier-weighted RA hours methodology as follows:
 - In the 1st year, 2023/24: 40% weight non-risky hours and 60% for RA hours
 - In the 2nd year, 2024/25: 30% weight for non-risky hours and 70% for RA hours
 - In the 3rd year, 2025/26: 20% weight for non-risky hours and 80% for RA hours
 - MISO North and South will receive different RA hours since weather / grid conditions vary region to region

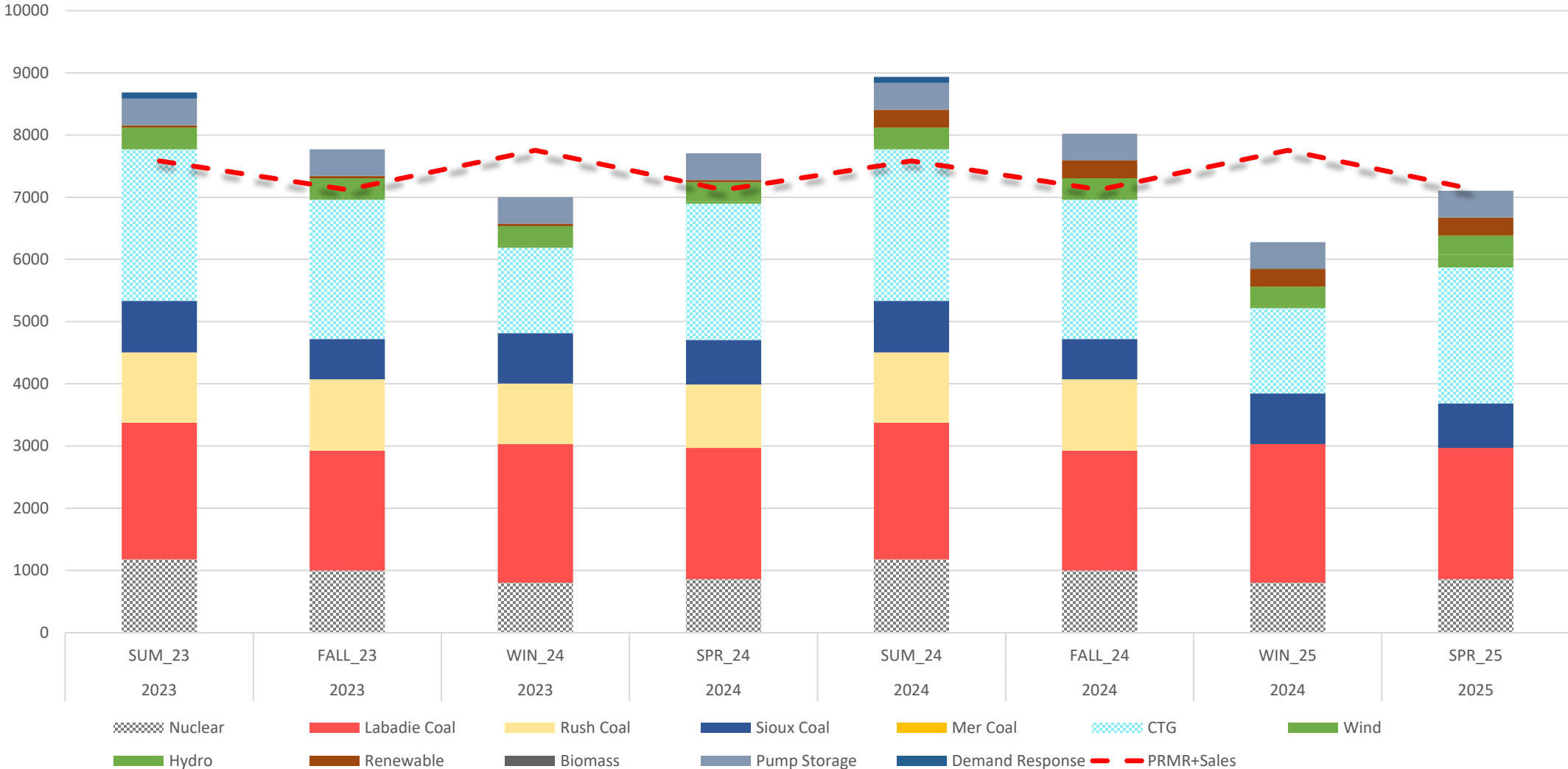
- Wind resources will receive seasonal capacity values via a blended methodology– ELCC adjusted by RA hours
- Solar will have the same treatment. The only issue is there is significantly less solar resources on the MISO grid and thus less historical operational data. More updates to come here.

- For wind, ELCC studies will be done per season– then adjusted for RA hours
- Wind will get better capacity values in the shoulder months– with little accreditation in the summer. Solar will naturally be summer-heavy
- The graph below shows historic capacity values (as a percentage of nameplate) for wind. This gives a base-idea of what sort of ‘availability’ might be factored into the new accreditation equation

Unit-level ISAC by season from historical wind resources



UEC Capacity Positon



**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Midcontinent Independent System Operator, Inc.)

Docket No. ER22-495-000

**COMMENTS
OF AMEREN SERVICES COMPANY**

Pursuant to Rules 212 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“FERC” or “Commission”), 18 C.F.R. § 385.212, and the Commission's Combined Notice of Filings #1 issued on December 30, 2021,¹ Ameren Services Company on behalf of Ameren Illinois Company d/b/a Ameren Illinois ("Ameren Illinois"), Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") and Ameren Transmission Company of Illinois ("ATXI") (collectively "Ameren"), respectfully submits these comments² in the above-captioned proceeding concerning the November 30, 2021, submission of the Midcontinent Independent System Operator, Inc. ("MISO") to establish Resource Adequacy Requirements on a seasonal basis for each of the Summer, Fall, Winter and Spring Seasons, and to implement an availability-based Seasonal Accredited Capacity ("SAC") methodology for resources participating in MISO's annual Planning Resource Auction (“PRA”). Ameren respectfully requests that the Commission direct MISO to respond to the concerns raised herein and modify its proposal accordingly.³

¹ On December 9, 2021, the Commission issued a Notice of Extension of Time to submit comments until January 14, 2022 in this proceeding.

² Ameren Services Company submitted a doc-less motion to intervene on behalf of Ameren Illinois, Ameren Missouri and ATXI on December 13, 2021 (Accession No. 20211213-5157) and therefore, is a party to this proceeding.

³ The Court of Appeals for the District of Columbia Circuit has held that, in certain circumstances, the Commission has “authority to propose modifications to a utility’s [FPA section 205] proposal *if the utility consents to the modifications.*” *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 115 (D.C. Cir. 2017).

I. BACKGROUND

MISO explains that it is experiencing significant shifts in generation resource retirement, increased reliance on intermittent resources, significant weather events with correlated generator outages, and declining excess reserve margins. MISO explains that reliability risks associated with Resource Adequacy have shifted from "Summer only" to a year-round concern and that since 2016 more than 60% of Maximum Generation ("MaxGen") declarations have occurred outside the Summer months.⁴ To address this shift, MISO proposes the establishment of a seasonal Resource Adequacy construct coupled with availability-based accreditation for certain Planning Resources.

More specifically, MISO intends to transition from the current Summer-based, annual construct to four distinct Seasons: June to August for Summer, September to November for Fall, December to February for Winter, and March to May for Spring. Under the proposed construct, MISO will establish Planning Reserve Margin Requirements ("PRMR") for all Market Participants ("MPs") representing Load Serving Entities ("LSEs") on a seasonal basis. MISO will then conduct the PRA and establish an Auction Clearing Price for each Local Resource Zone ("LRZ") for each Season. The PRA will still be conducted one time per year, in the Spring before the applicable Planning Year, but will clear the requirements for each season.⁵

MISO also proposes accreditation reforms to assure that resources are available when needed the most by aligning resource accreditation with availability during the highest periods in question. Specifically, MISO proposes to determine the SAC for certain classes of resources. Additionally, MISO proposes a tiered weighting structure, with a transition period, to determine

⁴ MISO November 30, 2021 Filing Transmittal Letter, page 3.

⁵ *Id.* at page 4.

individual resource accreditation by season based on each resource's real-time offered availability, accounting for coordinated planned outages.⁶

II. COMMUNICATIONS AND CORRESPONDENCE

All communications, correspondence, and documents related to this proceeding should be directed to the following persons:

Matt R. Tomc
Director and Asst. General Counsel
Ameren Services Company
1901 Chouteau Avenue (MC 1310)
St. Louis, MO 63103
Phone: (314) 554-4673
mtomc@ameren.com

III. COMMENTS

Ameren generally supports MISO's efforts to improve the planning auction to reflect seasonality and to require some form of accreditation and believes with certain adjustments to the availability-based accreditation provisions, MISO's two proposed reforms could be found to be just and reasonable.

Ameren agrees with MISO's proposed shift to seasonal Resource Adequacy ("RA") Requirements. As MISO explains, the proposal will mitigate resource adequacy risks across the year, and not just in the peak Summer season. As load serving entities, the Ameren companies are acutely aware of the need to align resource availability with seasonal needs and thus support that aspect of MISO's two-part proposal.

⁶ *Id.* at page 5.

However, Ameren does not support MISO's proposed accreditation provisions. While Ameren agrees that MISO's accreditation requirements need to be updated and strengthened, as discussed below the proposed reforms have not been shown to be just and reasonable. The proposal to apply the accreditation provisions to only Capacity Resources that are Demand Response Resources or Generation Resources (referred to as "Schedule 53 Resources" by MISO) and to except Dispatchable Intermittent Resources, Intermittent Generation, Electric Storage Resources, External Resources or Use Limited Resources until a future filing is made does not result in comparable treatment of all resource types and undermines the purpose of requiring accreditation.

For the Non-Schedule 53 Resources, MISO's proposal is to allow those resources to use current accreditation. Essentially, for these resources, MISO is not requiring anything more – no greater accountability, despite MISO acknowledging that "sizeable segments of dispatchable thermal generation are aging with correlated increased outage rates, and MISO's resource portfolio is shifting to increasing amounts of intermittent and highly weather-dependent wind and solar resources, all against a backdrop of lower excess reserve margins."⁷ While MISO claims to have shaped the accreditation by season for the Non-Schedule 53 Resources, what MISO did was limited. It simply shaped the Effective Load Carrying Capability ("ELCC") by season; it did not materially adjust accreditation for these resources in a comparable manner as the Schedule 53 Resources.⁸

⁷ MISO November 30, 2021 Filing Transmittal Letter, page 11.

⁸ See, October 6, 2021 presentation of the MISO Independent Market Monitor, Potomac Economics, "Capacity Accreditation: Adjusting for the UCAP to SAC Shift" which identifies problems with adjusting the demand by the SAC/UCAP ratio including that the ratio is not applied to Non-Thermal Resources. Further stating that "Since they will not be accredited using SAC initially, they will implicitly receive an effective up-rate due to the proration of the PRMR" and "[t]his is discriminatory and creates inefficient incentives favoring non-thermal resources."

Ameren is also concerned that the proposed tiered weighting structure to determine individual resource accreditation by Season based on each resource's real-time offered availability during Tier 1 hours (*i.e.*, all hours not including RA hours) and Tier 2 hours (*i.e.*, RA hours) unduly discriminates against and unjustly penalizes certain resources by determining RA hours for each season based on MaxGens and the 65 hours with the tightest operating margin. While the introduction of Tier 2 hours may make sense for certain generators where there is a correlation between availability and season and where the generator can take action to avoid the unavailability (e.g., combustion turbine generators with interruptible winter fuel supplies), it does not make sense when there is an event beyond the control of the generator (e.g., tube leak at a steam plant in the middle of summer). Moreover, the application of an 80% weighting factor to RA hours can be especially punitive to an otherwise reliable and well-performing generator that was unavailable during the often-times randomly occurring RA hour. For seasons that do not have 65 RA hours, the proposed accreditation calculation uses annual averages to fill the gap, which results in an accreditation that does not accurately reflect seasonal performance.

Ameren also questions MISO's proposal to limit outage related exemptions (Tier 1 and Tier 2). As proposed, the exemption rules consider whether an outage is submitted more than 120 days in advance, whether there is a positive Maintenance Margin for the duration of the outage, and whether the outage is scheduled to start less than 120 days from the end of the previous outage.⁹ It appears that under the proposal any outages scheduled less than 120 days but for which a Maintenance Margin exists cannot receive an exemption for Tier 2 and thus excludes hours that should be used for planned outages. MISO should be directed to revise the

[Microsoft PowerPoint - Independent Market Monitor-Converting UCAP Requirement under Seasonal Accredited Capacity.pptx \(misoenergy.org\)](#).

⁹ MISO November 30, 2021 Filing Transmittal Letter, page 49.

tariff language to require that either the 120 days *or* the Maintenance Margin is met, but not both.

In short, MISO's proposal acts as a disincentive rather than incentive for resources to be available; it penalizes resources for actions that cannot be avoided. The Commission should look warily at yet another proposal that disincentivizes resource participation in the PRA.

Finally, MISO's proposal to require replacement for any Planning Resource that will be on planned outage or planned derate for more than 31 days in a Season in which they clear creates the potential for the exercise of market power. MISO explains that consistent with current tariff requirements, replacements can only be made from uncleared ZRCs, and that existing rules regarding deliverability and zonal transfer limits will apply.¹⁰ MISO's proposed requirement to replace capacity for planned outages lasting more than 31 days in a Season mistakenly assumes there is a robust and liquid Replacement Capacity Market. In Ameren's experience, the current construct that provides for "balance of the Planning Year" to find Replacement Capacity is already challenging because liquidity is often low. Ameren has no confidence that moving to a shorter period to find Replacement Capacity will actually improve liquidity or that there will be interest in selling Replacement Capacity for days and not weeks or months (e.g., if a formerly 31-day outage is extended to 39 days Ameren would need to find Replacement Capacity for 8 days). While MISO acknowledges the lower reserve margins,¹¹ it fails to acknowledge the lack of liquidity in the replacement market and thus the potential for the exercise of market power.

¹⁰ *Id.* at page 14.

¹¹ *Id.* at page 11.

IV. CONCLUSION

Wherefore, for the foregoing reasons, Ameren respectfully requests that the Commission take these comments under consideration and direct MISO to address the concerns raised herein, *e.g.*, through deficiency letter, technical conference. This is necessary to ensure the proposal is just and reasonable effective September 1, 2022 as requested.

Respectfully submitted,

/s/ Matthew R. Tomc

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Dated: January 14, 2022

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 14th day of January, 2022.

/s/ Denice S. Simpson



Resource Adequacy Reforms: Requirement and Accreditation Changes

Ameren

Bob Kuzman

Case No. EF-2024-0021
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Data formatting walk-through

MP 2

Season	Current Annual Surplus/Deficit (A)	Change in Requirement from Moving to Seasonal	Change in Requirement from Moving to SAC	Netchange in Requirement (B)	Change in Accreditation from Moving to Seasonal	Change in Accreditation from Moving to SAC	Netchange in Accreditation (C)	New Seasonal Surplus/Deficit SAC (D=A+B+C)
summer	2	3			4			5

1. NERC ID
2. PY21-22 Results. Current Annual Surplus/Deficit, “A”, becomes the starting point for the table below.
3. This section shows two changes to the demand requirement, seasonal and SAC changes, and their sum (B), expressed as an improvement to the surplus/deficit (positive number), or a detriment to the surplus/deficit (negative number).
4. This section shows two changes to resource accreditation, seasonal and SAC changes, and their sum (C), expressed as an improvement to the surplus/deficit (positive number), or a detriment to the surplus/deficit (negative number).
5. The net impact of changes to the RA construct. This column (D) is the sum of the starting point (A), and the net changes in (B) and (C).

Ameren Updated Surplus/Deficit by Season

MP	PY21-22 Annual Requirement	7,446
AMUE	PY21-22 Ucap	8,949
	Current Annual Surplus/Deficit (A)	1,502

Season	Current Annual Surplus/Deficit (A)	Change in Requirement from Moving to Seasonal	Change in Requirement from Moving to SAC	Netchange in Requirement (B)	Change in Accreditation from Moving to Seasonal	Change in Accreditation from Moving to SAC	Netchange in Accreditation (C)	New Seasonal Surplus/Deficit SAC (D=A+B+C)
summer	1,502	129	432	561	-200	279	80	2,143
fall	1,502	630	1,062	1,692	-86	-874	-960	2,235
winter	1,502	329	850	1,179	-1,319	-530	-1,849	832
spring	1,502	731	893	1,623	-1,264	248	-1,015	2,110

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In this surplus/deficit view, positive numbers increase a surplus and negative numbers decrease a surplus.



CP-Node Caveats

1. Analysis began with the CPNode list from the 2021-2022 PRA; any additional ZRC transactions between MPs were not included.
2. Removed wind/solar/BTMG/DR/EE/External and Run-of-river resources.
3. CPNodes with zero converted ZRC value from PRA were excluded
4. All combined cycle information is grouped with the “parent” CP Node
5. Created separate column with different CPNode Name for some resources that may have offered into RT differently than how they participate in PRA
6. New or retired resources after April 2021 may not be reflected in data
7. This analysis covers 97% of generators in the MISO footprint.

RASC materials posted for this week’s meeting include an example that walks through a hypothetical SAC accreditation evaluation.

CP-Node Details

LRZ	CP Nodes	summer			fall			winter			spring		
		Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC
4	AMMO.GOOSEGEN1	61	68	7	63	65	2	5	34	29	0	65	65
	AMMO.GOOSEGEN2	67	73	6	69	65	-4	40	37	-3	0	69	69
	AMMO.GOOSEGEN3	48	67	19	50	53	4	28	31	3	24	62	38
	AMMO.GOOSEGEN4	54	74	19	56	66	10	70	38	-31	57	69	12
	AMMO.GOOSEGEN5	68	74	6	70	63	-6	34	38	4	0	69	69
	AMMO.GOOSEGEN6	50	57	7	52	56	5	30	44	14	42	61	19
	AMMO.KMDYCTG1	52	84	32	53	63	10	0	44	44	50	70	20
	AMMO.KMDYCTG2	77	93	16	79	102	23	0	52	52	68	87	19
	AMMO.PNKYCTG1	42	42	0	42	35	-8	3	16	13	22	35	13
	AMMO.PNKYCTG2	43	44	1	43	33	-10	3	13	10	20	34	13
	AMMO.PNKYCTG3	42	43	2	42	35	-7	2	15	13	19	35	16
	AMMO.PNKYCTG4	41	43	2	41	34	-7	2	16	14	19	33	14
	AMMO.PNKYCTG5	27	23	-3	27	20	-7	0	11	11	0	23	23
	AMMO.PNKYCTG6	21	21	0	21	20	-1	0	10	10	1	23	22
	AMMO.PNKYCTG7	26	31	6	26	33	8	2	19	18	10	31	20
	AMMO.PNKYCTG8	17	18	0	17	19	1	0	10	10	1	20	19
	AMMO.RCCKCTG1	58	70	11	60	71	11	49	38	-12	18	57	39
	AMMO.RCCKCTG2	56	47	-9	57	68	10	12	19	7	19	43	24
	AMMO.RCCKCTG3	48	70	22	49	72	22	43	30	-13	0	52	52
	AMMO.RCCKCTG4	52	65	12	54	70	16	27	29	2	0	50	50
AMMO.VENCTG2	45	42	-3	46	35	-12	23	17	-6	37	32	-5	
AMMO.VENCTG3	146	165	19	148	122	-26	3	74	72	25	133	109	
AMMO.VENCTG4	137	149	12	139	124	-15	9	80	71	17	130	114	
AMMO.VENCTG5	66	94	28	68	90	22	1	48	47	9	81	72	

CP-Node Details

LRZ	CP Nodes	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC	Seasonal UCAP	Seasonal Accredited Capacity (SAC)	Change in Accreditation from Moving to SAC
5	AMMO.AUDRN11	68	73	5	70	73	3	21	47	26	40	69	28
	AMMO.AUDRN22	67	74	7	69	73	4	72	42	-29	46	65	19
	AMMO.AUDRN33	69	74	5	71	73	3	25	43	18	56	69	13
	AMMO.AUDRN44	65	74	9	67	73	7	30	43	13	48	69	21
	AMMO.AUDRN55	64	74	10	65	73	8	51	43	-8	21	69	48
	AMMO.AUDRN66	64	74	10	66	74	8	53	43	-10	32	70	37
	AMMO.AUDRN77	53	70	17	54	67	13	9	39	30	0	62	62
	AMMO.AUDRN88	55	66	11	57	66	10	9	39	30	25	63	38
	AMMO.CALLAWAY1	1,157	1,177	21	1,172	1,000	-172	1,200	804	-396	1,193	859	-334
	AMMO.FGRDCTG1	32	45	13	33	45	12	29	40	11	7	36	29
	AMMO.LABADIE1	559	563	4	566	579	13	582	578	-5	569	524	-46
	AMMO.LABADIE2	569	534	-35	576	415	-161	590	524	-66	554	520	-35
	AMMO.LABADIE3	540	552	13	546	378	-168	543	555	12	543	520	-23
	AMMO.LABADIE4	551	550	-1	557	554	-3	538	572	35	533	548	15
	AMMO.MERAMEC1	102	101	-2	104	89	-15	100	41	-59	80	67	-13
	AMMO.MERAMEC2	100	93	-7	102	81	-21	100	40	-60	94	64	-29
	AMMO.MERAMEC3	182	116	-66	184	127	-57	193	105	-88	199	135	-64
	AMMO.MERAMEC4	254	239	-15	258	167	-90	247	237	-10	277	199	-78
	AMMO.MERAMECT2	24	3	-21	24	9	-15	10	2	-8	33	3	-30
	AMMO.MEXCTG1	34	49	15	35	50	15	45	46	0	40	50	10
	AMMO.MOBCTG1	35	43	8	37	45	9	15	46	31	22	47	25
	AMMO.MORUCTG1	33	48	15	34	50	15	43	53	10	35	47	12
	AMMO.PENOCTG1	35	38	4	35	19	-16	51	33	-18	45	37	-8
	AMMO.PENOCTG2	46	41	-5	47	27	-20	46	32	-14	45	38	-7
	AMMO.PENOCTG3	40	36	-4	41	34	-7	45	29	-15	41	29	-12
	AMMO.PENOCTG4	38	46	8	39	27	-11	37	32	-6	43	40	-3
	AMMO.RUSHIS1	503	567	64	508	490	-18	519	502	-17	523	498	-25
	AMMO.RUSHIS2	530	561	31	535	581	45	511	469	-42	516	522	5

Case No. EF-2024-0021

SCHEDULE CME-r6

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

Case No. EF-2024-0021

SCHEDULE CME-r7

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

1 IN THE UNITED STATES DISTRICT COURT
2 EASTERN DISTRICT OF MISSOURI
3 EASTERN DIVISION
4
5 UNITED STATES OF MISSOURI,)
6 Plaintiff,)
7 vs.) Civil Action No.
8) 4:11-CV-00077-RWS
9 AMEREN MISSOURI,)
10 Defendant.)

11
12 VIDEOTAPED 30(b)(6) DEPOSITION OF KYRA MOORE
13 TAKEN ON BEHALF OF AMEREN MISSOURI
14 SEPTEMBER 18, 2013
15

16 VIDEOTAPED 30(b)(6) DEPOSITION OF KYRA MOORE,
17 produced, sworn, and examined on September 18, 2013, between
18 the hours of 8:30 a.m. and 7:10 p.m. of that day at the
19 offices of Stinson Morrison Hecker, LLP, 230 W. McCarty
20 Street, Jefferson City, Missouri, before Jennifer L. Leibach,
21 CCR No. 1108, within the state of Missouri, in a certain
22 cause now pending in the United States District Court,
23 Eastern District of Missouri, Eastern Division, wherein
24 United States of America is the plaintiff and Ameren Missouri
25 is the defendant.

Page 2	Page 4
<p>1 APPEARANCES</p> <p>2 FOR THE PLAINTIFF:</p> <p>3 Mr. Andrew C. Hanson</p> <p>4 Mr. Bradford McLane</p> <p>5 U.S. DEPARTMENT OF JUSTICE</p> <p>6 601 D Street N.W.</p> <p>7 Washington, DC 20004</p> <p>8 (202) 514-9859</p> <p>9 Andrew.hanson@usdoj.gov</p> <p>10</p> <p>11 FOR THE DEFENDANT:</p> <p>12 Mr. Stephen J. Bonebrake</p> <p>13 Mr. David M. Loring</p> <p>14 SCHIFF HARDIN, LLP</p> <p>15 6600 Sears Tower</p> <p>16 Chicago, Illinois 60606</p> <p>17 (312) 258-5646</p> <p>18 Sbonebrake@schiffhardin.com</p> <p>19</p> <p>20 FOR THE WITNESS:</p> <p>21 Mr. Timothy P. Duggan</p> <p>22 OFFICE OF THE ATTORNEY GENERAL</p> <p>23 PO Box 899</p> <p>24 Jefferson City, Missouri 65102</p> <p>25 (573) 751-3640</p> <p>Tim.duggan@ago.mo.gov</p>	<p>1 INDEX</p> <p>2</p> <p>3 EXAMINATIONS</p> <p>4 Direct Examination by Mr. Bonebrake 8</p> <p>5 Cross-Examination by Mr. Hanson 251</p> <p>6 Redirect Examination by Mr. Bonebrake 291</p> <p>7</p> <p>8 EXHIBIT INSTRUCTIONS</p> <p>9 Original exhibits to be attached to the original</p> <p>10 transcript.</p> <p>11</p> <p>12 EXHIBIT INDEX:</p> <p>13 Exhibit No. 1</p> <p>14 Subpoena for a 30(b)(6) deposition 7</p> <p>15 Exhibit No. 2</p> <p>16 Binder, Volume 1 19</p> <p>17 Exhibit No. 3</p> <p>18 Binder, Volume 2 19</p> <p>19 Exhibit No. 4</p> <p>20 List of MoDOT Employees 33</p> <p>21 Exhibit No. 5</p> <p>22 Construction Permit Review 48</p> <p>23 Procedure Manual</p> <p>24 Exhibit No. 6</p> <p>25 Missouri Construction Permitting Rules 60</p>
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<p>1 APPEARANCES</p> <p>2 FOR THE US EPA/REGION 7:</p> <p>3 Mr. Alex Chen</p> <p>4 11201 Renner Boulevard</p> <p>5 Lenexa, Kansas 66219</p> <p>6 (913) 551-7962</p> <p>7 Chen.alex@epa.gov</p> <p>8</p> <p>9 CERTIFIED COURT REPORTER:</p> <p>10 Jennifer L. Leibach, CCR No. 1108</p> <p>11 ALDERSON COURT REPORTING</p> <p>12 1155 Connecticut Ave, NW</p> <p>13 Suite 200</p> <p>14 Washington, DC 20036</p> <p>15 (800) 367-3376</p> <p>16 ALSO PRESENT: Sam Schneiders, Videographer</p> <p>17 Steven C. Whitworth</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>1 EXHIBITS INDEX (continued):</p> <p>2 Exhibit No. 7</p> <p>3 7/21/06 Letter to Associated Electric 88</p> <p>4 Exhibit No. 8</p> <p>5 General Overview of Air Permitting 103</p> <p>6 Exhibit No. 9</p> <p>7 No Permit Required Letter for Sibley 107</p> <p>8 Plant</p> <p>9 Exhibit No. 10</p> <p>10 Permit Applicability for Associated 113</p> <p>11 Electric</p> <p>12 Exhibit No. 11</p> <p>13 3/29/06 Letter to Associated Electric 120</p> <p>14 Exhibit No. 12</p> <p>15 3/5/08 Applicability Determination 127</p> <p>16 Exhibit No. 13</p> <p>17 Applicability Determination 140</p> <p>18 Exhibit No. 14</p> <p>19 Letter from John Noedel 147</p> <p>20 Exhibit No. 15</p> <p>21 Applicability Determination 150</p> <p>22 Exhibit No. 16</p> <p>23 Applicability Determination 162</p> <p>24 Exhibit No. 17</p> <p>25 EPA Region 7 Report 173</p>

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1 EXHIBIT INDEX (continued):
2 Exhibit No. 18
3 Applicability Determination 183
4 Exhibit No. 19
5 Letter from MDNR 190
6 Exhibit No. 20
7 Applicability Determination 196
8 Exhibit No. 21
9 Permit 209
10 Exhibit No. 22
11 Permit 223
12 Exhibit No. 23
13 Project Applicability for City Utilities 234
14 Exhibit No. 24
15 Applicability Determination 239
16 Exhibit No. 25
17 3/8/10 MDNR Letter to IPL 246
18 Exhibit A
19 Protective Order
20
21
22
23
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1 Department of Natural Resources.
2 MR. HANSON: Andrew Hanson with the U.S.
3 Department of Justice and I'm here on behalf of plaintiff,
4 United States.
5 MR. MCLANE: Brad McLane also on behalf of
6 United States.
7 MR. CHEN: Alex Chen with the U.S.
8 Environmental Protection Agency, Region 7.
9 MR. BONEBRAKE: And then I have just one
10 clarification. This is a Rule 30(b)(6) deposition of the
11 Missouri Department of Natural Resources. And as I
12 understand it, Ms. Moore is -- has been designated by that
13 agency to testify today on its behalf. So if we don't have
14 any preliminaries, then we'll proceed to some questions.
15 VIDEOGRAPHER: And then the swearing in.
16 MR. BONEBRAKE: Okay.
17 VIDEOGRAPHER: And the court reporter will now
18 swear in the witness.
19 KYRA MOORE,
20 of lawful age, having been produced, sworn, and examined on
21 the part of the defendant, testified as follows:
22 DIRECT EXAMINATION
23 QUESTIONS BY MR. BONEBRAKE:
24 Q. Good morning.
25 A. Good morning.

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1 IT IS HEREBY STIPULATED AND AGREED by and
2 between counsel for the plaintiff and counsel for the
3 defendant that this deposition may be taken by Jennifer L.
4 Leibach, a Certified Court Reporter, CCR No. 1108, thereafter
5 transcribed into typewriting, with the signature of the
6 witness being expressly reserved.
7 (Exhibit No. 1 was marked for identification.)
8 VIDEOGRAPHER: Okay. We are on the record.
9 Today's date is September the 18th of 2013. The time is
10 approximately 8:37 a.m. This is the video deposition of Kyra
11 Moore. It's in the matter of United States of America versus
12 Ameren Missouri, Civil Action No. is 4:11-CV-00077-RWS. And
13 this is in the U.S. District Court, Eastern District of
14 Missouri, Eastern Division. We're here today at the law
15 offices of Stinson Morrison & Hecker at 230 West McCarty
16 Street in Jeff City, Missouri. If the attorneys could please
17 state their appearance.
18 MR. BONEBRAKE: My name is Steve Bonebrake and
19 I'm with the law firm of Schiff Hardin and I am here today on
20 behalf of Ameren Missouri, defendant in the lawsuit.
21 MR. LORING: David Loring, law firm of Schiff
22 Hardin, here on behalf of the defendant, Ameren Missouri, as
23 well.
24 MR. DUGGAN: Tim Duggan, I'm with the Missouri
25 Attorney General's Office and I am here on behalf of the

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1 Q. As I just mentioned, my name is Steve
2 Bonebrake and I'm with the law firm of Schiff Hardin. We
3 represent Ameren Missouri in connection with the lawsuit that
4 brings us here today, which includes Clean Air Act brought by
5 the United States, including prevention of significant
6 deterioration program claims.
7 Could you please state and spell your full
8 name for the record?
9 A. My name is Kyra Moore, first name is K-y-r-a,
10 last name is Moore, M-o-o-r-e.
11 Q. And do you have a middle initial?
12 A. L.
13 Q. Thank you. What is your current home address?
14 A. 810 Maupin, M-a-u-p-i-n, Road, Columbia,
15 Missouri 65203.
16 Q. And what is your current business address?
17 A. 1659 East Elm Street, Jefferson City, Missouri
18 65101.
19 Q. And is that work address an office of the
20 Missouri Department of Natural Resources?
21 A. Yes, it is.
22 Q. Is that the headquarters for that agency?
23 A. It is the office of the department's Air
24 Pollution Control Program.
25 Q. And what is your birth date?

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1 A. March 5th, 1968.
 2 Q. 1968? I would like to -- to show you a -- an
 3 exhibit that's been marked Moore/MDNR. It's been marked for
 4 identification as Exhibit No. 1.
 5 MR. BONEBRAKE: Dave, if you could hand that
 6 out to the folks around the table.
 7 THE WITNESS: Sorry. Yes.
 8 BY MR. BONEBRAKE:
 9 Q. And this is a copy of the subpoena with a
 10 writer for the 30(b)(6) deposition today and that writer
 11 contains a number of topics for you of the deposition of
 12 Missouri Department of Natural Resources.
 13 And do you understand, Ms. Moore, that you are
 14 testifying today on behalf of the Missouri Department of
 15 Natural Resources with respect to the topics that are
 16 identified in the writer to the subpoena?
 17 A. Yes, I do.
 18 Q. I'd like to start with just a few general
 19 instructions for the deposition with the -- with the goal of
 20 trying to get as clean and understandable of a transcript as
 21 we can for our conversation today. We will -- we will
 22 proceed question-and-answer style, so I will ask questions
 23 and ask then for you to answer those questions. So if you
 24 could wait for me to complete my questions, I would
 25 appreciate it and I will try to wait for you to complete your

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1 answers before I ask you any further questions.
 2 A. Okay.
 3 Q. If there's something ambiguous in my
 4 questions, please let me know and I'll try to reframe it or
 5 rephrase it so that we have a common understanding of what
 6 I'm -- what I'm asking you. If you don't mention it and it's
 7 ambiguous, I'll assume that you understood what I was asking
 8 you. Okay?
 9 A. All right.
 10 Q. If you answer a question and then later think
 11 of something that would either change the answer or from your
 12 perspective make it more complete --
 13 A. Uh-huh.
 14 Q. -- please let me know. At any time, we can
 15 get that on the record for you.
 16 A. Okay.
 17 Q. And also I was going to mention we will
 18 probably be using a number of acronyms today. In fact, I
 19 know we will. So I thought I would put a few of them on the
 20 record up front to try to expedite the process so we have a
 21 common understanding of the terms. I will use the terms US
 22 EPA or EPA as short for the United States Environmental
 23 Protection Agency. Is that okay with you?
 24 A. Yes.
 25 Q. MDNR for the Missouri Department of Natural

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1 Resources?
 2 A. Yes.
 3 Q. I will use NSR as short for New Source Review,
 4 which is comprised of the prevention of significant
 5 deterioration and non-attainable NSR programs. Is that okay
 6 as well?
 7 A. Yes.
 8 Q. PSD, short for the prevention of short
 9 deterioration program.
 10 A. Yes.
 11 Q. And if I use any acronyms during the course of
 12 the deposition and you're not sure what I'm asking you, again
 13 let me know and I'll try to state it out so that --
 14 A. Okay.
 15 Q. -- we have a common understanding of what I
 16 ask. And if you use an acronym in the course of your answer,
 17 I may ask you to spell it out in the record as well.
 18 A. Okay.
 19 Q. And if you need a break during the course of
 20 the deposition, let us know and we'll take a break as soon as
 21 we can, consistent with the line of questioning that we're
 22 on.
 23 And you understand that you are testifying
 24 today under oath?
 25 A. Yes.

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1 Q. Are you represented by counsel today at the
 2 deposition?
 3 A. Yes, I am.
 4 Q. And who is your counsel today for the
 5 deposition?
 6 A. Tim Duggan.
 7 Q. Who is your current employer?
 8 A. The Missouri Department of Natural Resources,
 9 specifically the air pollution control program.
 10 Q. And what is your current position?
 11 A. I am the director of the air program.
 12 Q. And when you say air program, that's short for
 13 air pollution control program?
 14 A. Air pollution control program, yes.
 15 Q. And what are the responsibilities of the air
 16 program?
 17 A. The air program within the Department of
 18 Natural Resources is the agency that -- is the designated
 19 authority to do the Clean Air Act in the state of Missouri,
 20 in addition to other regulations, but it is the Missouri
 21 program that does the Clean Air Act.
 22 Q. Now when you say "does the Clean Air Act," do
 23 you mean implements for the state the federal Clean Air Act?
 24 A. Right.
 25 Q. And how does it implement for the state the

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1 federal Clean Air Act?
 2 A. Through several different sections in our
 3 program. We do permitting, we do compliance enforcement, we
 4 do planning which involves rulemaking and creation of our
 5 SIPS, our state implementation plan, with EPA. We do a
 6 variety of other projects as well --
 7 Q. Okay.
 8 A. -- within the program.
 9 Q. So is -- is one of the duties of the air
 10 program to issue construction permits?
 11 A. Yes, that's correct.
 12 Q. And would that include PSD construction
 13 permits?
 14 A. Yes.
 15 Q. And is one of the duties of the air program
 16 also to make determinations regarding the applicability of
 17 construction permitting requirements?
 18 A. Yes, that's correct.
 19 Q. And would that include duties to make
 20 determinations regarding applicability of the PSD program for
 21 sources in Missouri?
 22 A. Yes.
 23 Q. That is correct?
 24 A. Yes, that's correct.
 25 Q. And what are your specific duties as director?

Page 15

1 A. I oversee the program so all the activities of
 2 the program fall under my purview. I have several different
 3 managers that assist me with that, but permitting is one of
 4 the main sections of the program in addition to enforcement
 5 planning that I mentioned earlier and a couple of other
 6 fiscal and budgets sections.
 7 Q. So what -- what managers report to you?
 8 A. I have six managers. Do you want their names
 9 or?
 10 Q. No, might be easiest if you will give me
 11 positions.
 12 A. Okay. The first we have an inspection
 13 maintenance section that's actually housed in our St. Louis
 14 regional office, but they report to me that manage our
 15 emission program in the St. Louis non-attainment area. And
 16 then the other five sections are housed in the same building
 17 with me. The permit section, that's self-explanatory. The
 18 planning section that handles the rules and the state
 19 implementation plans. The air quality analysis section which
 20 handles our emission inventory and our monitoring duties.
 21 The compliance enforcement section, again self-explanatory to
 22 some extent. And our fiscal and budget section, which
 23 handles our budget and our personnel issues within the
 24 program.
 25 Q. Does the compliance and enforcement -- do you

Page 16

1 call that a section?
 2 A. Yes, those are all sections.
 3 Q. Does that section then have responsibilities
 4 for bringing enforcement actions against sources in Missouri
 5 that violate the state of Missouri's air regulations?
 6 A. Yes, that is one of their duties.
 7 Q. You mentioned there was a permitting section
 8 that reported to you as well?
 9 A. Yes.
 10 Q. And is a duty of the permitting section, then,
 11 the issuance of PSD permits and the determination of
 12 applicability of PSD requirements?
 13 A. Yes, that is one of their tasks.
 14 Q. And how long have you been director?
 15 A. Two years.
 16 Q. And when did you start with MDNR?
 17 A. In March of 1999.
 18 Q. And what was your initial position?
 19 A. I was hired into the air program as a permit
 20 writer in the construction permit unit in 1999.
 21 Q. And did you go by a different name, by chance,
 22 in 1999?
 23 A. Yes, I was hired in my maiden name which is
 24 Hayes, H-a-y-e-s, for about six months.
 25 Q. Okay. And how long were you permit engineer?

Page 17

1 A. I didn't bring that with me. For a couple
 2 years, I wrote permits in that unit and then in approximately
 3 March 2002, I became the supervisor of the construction
 4 permit unit. My official title was interim supervisor for a
 5 couple years and then I was the permit section chief after
 6 that.
 7 Q. So from -- from 1999 to 2002 while you were a
 8 permit engineer, was your primary duty determining
 9 applicability of construction permit requirements and issuing
 10 construction permits?
 11 A. Yes, issuing permits was the main duty.
 12 Applicability determinations is one part of that, so.
 13 Q. And that would have included PSD permits?
 14 A. Yes, I was involved in a couple PSD permits.
 15 Q. Now you mentioned your position changed in
 16 2002?
 17 A. Yes.
 18 Q. And did you say you became a supervisor at
 19 that time?
 20 A. I was the unit chief which is the supervisor
 21 of that -- the construction permit unit, supervising
 22 approximately ten permit writers, I believe, for two years.
 23 Q. So that brings us to 2004?
 24 A. Yes.
 25 Q. What happened at that point?

Page 18

1 A. And then I became the supervisor of the permit
 2 section, which in addition to the construction permit unit
 3 also supervised the operating permit unit, which issues the
 4 Title V permits for Missouri. At the time, there was also an
 5 initial review unit in the permit section that I also
 6 supervised that handled completeness checks and I did that
 7 starting in 2004, May, I believe, of 2004.
 8 Q. Okay. So as I understand it, there is a --
 9 well, let's strike that. Let's complete the chronology.
 10 A. Uh-huh.
 11 Q. How long were you the manager of the permit
 12 section?
 13 A. Until July 2011 when then program director Jim
 14 Cavanaugh retired and I became the interim program director
 15 and then accepted the position permanently in September of
 16 2011.
 17 Q. And during the time period when you have been
 18 at MDNR, that is from 1999 to the present --
 19 A. Yes.
 20 Q. -- has there been a construction permit unit
 21 within a permit section within air programs?
 22 A. Yes.
 23 Q. And have the duties of the construction permit
 24 unit consistently during that period of time included the
 25 determination of the applicability of construction permit

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1 requirements and the issuance of construction permits?
 2 A. Yes.
 3 Q. And that would include PSD permits?
 4 A. Yes, that's correct.
 5 Q. Did you prepare for the deposition today?
 6 A. Yes.
 7 Q. And can you describe for us how you prepared?
 8 A. Reviewing, which is I guess now Exhibit 1, the
 9 list. I tried to refamiliarize myself with the different
 10 topics in there and I also was provided these binders from
 11 the Department of Justice and I went through those documents
 12 as well briefly, so.
 13 Q. All right. And we'll let the record reflect
 14 that the witness is pointing to a couple of binders with the
 15 label MDNR deposition Volume 1 and Volume 2. And that
 16 Mr. Hanson for the Department of Justice provided the binders
 17 with contained documents to us this morning prior to the
 18 deposition.
 19 And Ms. Moore, you indicated that you reviewed
 20 the documents in these binders for your deposition?
 21 A. Yes.
 22 MR. BONEBRAKE: Why don't we go ahead and mark
 23 Volume 1 as Exhibit 2 and Volume 2 as Exhibit 3.
 24 (Exhibit Nos. 2 and 3 were marked for
 25 identification.

Page 20

1 BY MR. BONEBRAKE:
 2 Q. I won't ask you to go through all the
 3 documents in the -- in the binders, but let me ask you
 4 generally: How did you go about looking at the paper in
 5 The -- in the binders to refresh your recollection, I think
 6 is how you put it?
 7 A. I -- I just flipped through the tabs. One of
 8 the binders has copies of some of the letters that were
 9 detailed in the Exhibit 1, subpoena document, to try and
 10 refresh my memory of what the -- the action was. In
 11 addition, I also reviewed some internal documents to kind of
 12 refresh my memory on permit -- permitting processes.
 13 Q. And you're referring to the -- the specific
 14 decisions that are reflected in topic two --
 15 A. Right, that's correct.
 16 Q. -- of the -- of the writer?
 17 A. Yes, that's correct.
 18 Q. Did you review any documents not contained in
 19 either of these two binders in preparation for your
 20 deposition today?
 21 A. Yes, I did.
 22 Q. And what documents were those?
 23 A. The main document I reviewed are construction
 24 permit guidance. It's available on our Web site. In
 25 addition, I have a hard copy binder in my office that I

Page 21

1 reviewed to refamiliarize myself with the permit process,
 2 since I've been out of that directly for two years, so I also
 3 reviewed a few articles that we have on hand regarding
 4 different topics, routine maintenance and repair, reasonable
 5 possibility, just to refresh my memory on the -- those topics
 6 as well.
 7 Q. What were those later said materials you
 8 reviewed related to routine issues?
 9 A. I'm sorry, what was that?
 10 Q. I think you mentioned you looked at some
 11 additional materials related to retain issues?
 12 A. There was a couple documents that some of our
 13 staff members had on our network. There was a presentation
 14 on routine maintenance and repair that EPA Region 7 staff
 15 gave the permit section staff. I reviewed that briefly to
 16 refamiliarize myself with the topic.
 17 There were a couple articles on routine
 18 maintenance and repair that we had in our network drive that
 19 I read and reviewed. I also reviewed a couple EPA guidance
 20 documents on routine maintenance as well as the Fact Sheets
 21 that EPA puts out on their different rules; New Source Review
 22 Reform, I reviewed that one. I also reviewed the Fact Sheet
 23 on the reasonable possibility rule.
 24 Q. Now you were mentioning an internal drive, I
 25 think was it --

Page 22

1 A. Yes.
 2 Q. -- the words you used?
 3 A. Yes, our network drive.
 4 Q. That's an internal MDNR network drive?
 5 A. That's correct.
 6 Q. And is that network drive organized by topic?
 7 A. No. It is organized by user. We have a
 8 network drive, specifically the permit section has its own
 9 folder. Each permit writer has a folder in that network
 10 drive. The permit writer, he or she, chooses to keep items
 11 on there. I reviewed a couple documents on -- on those just
 12 as reference. They were .pdf documents that were obtained
 13 off the web or either off EPA's database.
 14 Q. And does US EPA Region 7 have access to the --
 15 the MDNR internal drive?
 16 A. No.
 17 Q. You mentioned a EPA presentation on routine.
 18 A. Yes.
 19 Q. Do you recall the approximate date of that
 20 presentation?
 21 A. No. It would have been -- I was still permit
 22 section chief, so it would have been sometime probably 2009,
 23 2010 time frame.
 24 Q. And was that a PowerPoint presentation?
 25 A. Yes.

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1 Q. And were you present personally for that
 2 presentation?
 3 A. I was.
 4 Q. I'll probably circle back on that later --
 5 A. Okay.
 6 Q. -- and ask you some additional related
 7 questions.
 8 A. Okay.
 9 Q. Did you talk with anybody in preparation for
 10 your -- for MDNR's deposition today?
 11 A. Yes, I talked with my attorney, Tim Duggan,
 12 and the Department of Justice attorneys Andrew and Brad.
 13 Q. And when did you -- when did you meet with
 14 those attorneys?
 15 A. We had a conference call Monday morning and
 16 then met in-person yesterday afternoon, Tuesday afternoon.
 17 MR. BONEBRAKE: And Andrew, I assume that any
 18 questions that I might ask pertaining to those discussions
 19 would meet an objection on -- on your part?
 20 MR. HANSON: That's correct.
 21 MR. BONEBRAKE: And you would assert privilege
 22 and instruct the witness not to answer?
 23 MR. HANSON: That's correct.
 24 BY MR. BONEBRAKE:
 25 Q. Did you talk with anyone other than lawyers in

Page 24

1 preparation for your deposition today?
 2 A. Yes, I did. I consulted with my permit
 3 section chief Kendall {Hale and reviewed certain permit
 4 discussions and talked with him about some of the topics that
 5 I expected to be asked about today.
 6 Q. What is Mr -- Mr. Hale's position?
 7 A. He is the permit section chief in the air
 8 pollution control program.
 9 Q. And how long has he held that position?
 10 A. Since I became program director, so two years.
 11 Q. And he reports directly to you?
 12 A. Yes, he does.
 13 Q. And did he have a position at MDNR prior to
 14 that?
 15 A. Yes, he was the construction unit permit chief
 16 when I was the permit section chief.
 17 Q. Sounds like he's following you up the ladder.
 18 A. He did follow me. I hired him. Very wisely
 19 so.
 20 Q. So when did he start with MDNR?
 21 A. He started about six months prior to me, I
 22 believe, so it would have been October of 1998.
 23 Q. Are you familiar with the -- the claims at
 24 issue in the lawsuit that brings us here today?
 25 A. Yes.

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1 Q. And how did you become familiar with those
 2 claims?
 3 A. When the initial action was taken, I was privy
 4 to reading that document, and that's -- I was provided a copy
 5 of that at the time.
 6 Q. And when you say "that document," do you mean
 7 the Notice of Violation issued --
 8 A. Yes.
 9 Q. -- by the United States Environmental
 10 Protection Agency?
 11 A. Yes.
 12 Q. And do you know if there was more than one
 13 Notice of Violation?
 14 A. I do know there was an amended violation, so
 15 there were two documents. There was the original and then
 16 the amended.
 17 Q. Have you seen any Complaint in the lawsuit?
 18 A. I'm sorry, the?
 19 Q. The Complaint or Amended Complaint in the
 20 lawsuit?
 21 A. Have I seen it?
 22 Q. Have you seen it?
 23 A. Yes, I have seen that document.
 24 Q. Did you review the complaint or any of the
 25 NOV's in the lawsuit in preparation for the deposition today?

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1 A. I did not.
 2 Q. And you're aware that the United States has
 3 asserted NSR claims against Ameren Missouri?
 4 A. Yes, I am.
 5 Q. And so you first became aware of the NSR
 6 claims against Ameren Missouri when you reviewed the Notice
 7 of Violation; is that correct?
 8 A. Yes, that's correct.
 9 Q. Do you know how much of the coal-fired
 10 electric generating industry has received Notices of
 11 Violation asserting NSR claims?
 12 A. Nationwide?
 13 Q. Nationwide.
 14 A. Or in Missouri?
 15 Q. Nationwide.
 16 A. No, do I not know nationwide.
 17 Q. What about with respect to Missouri?
 18 A. I do know there is at least one other issue in
 19 Missouri with another one of our coal-fired plants,
 20 Associated Electric.
 21 Q. And has that company received a Notice of
 22 Violation as well?
 23 A. Yes. That's my understanding.
 24 Q. And has a lawsuit been filed against that
 25 company?

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1 A. I'm not sure if a lawsuit has been filed or if
 2 it was just a Notice of Violation. I'm not involved in that
 3 part of it yet, so I'm not sure.
 4 Q. And have you heard the term NSR Enforcement
 5 Initiative --
 6 A. Yeah.
 7 Q. -- related to the electric power industry?
 8 A. Yeah.
 9 Q. And what do you understand that term to mean?
 10 A. From EPA's perspective, Enforcement Initiative
 11 is something that they do on a routine basis. They choose a
 12 industry sector and review files in that industry sector in
 13 different states and determine if there are any enforcement
 14 issues. And the most recent one that I'm most aware of is
 15 the Enforcement Initiative for the coal-fired sector
 16 industry -- utility sector.
 17 Q. And do you know approximately when that
 18 Initiative against the utility sector started?
 19 A. I do not.
 20 Q. Was MDNR invited by US EPA to join the lawsuit
 21 against Ameren Missouri?
 22 A. I think I would say yes, that it was invited.
 23 I'm not sure if that's the correct term, but yes.
 24 Q. And did MDNR respond to that invitation?
 25 A. The response was no, we would not join.

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1 Q. And was that response oral or in writing?
 2 A. I am not sure of that. That response did not
 3 come directly from me. I don't know if that was written or
 4 oral.
 5 Q. Do you know who provided that response for
 6 MDNR?
 7 A. It would have been our general counsel's
 8 office and with the consult -- consulting the Attorney
 9 General's office.
 10 Q. Has MDNR in the past joined US EPA in Clean
 11 Air Act enforcement litigation?
 12 A. Specifically, I don't know any specifics, so I
 13 would have to say I'm not sure.
 14 Q. Before MDNR's response declining to join the
 15 lawsuit, do you know if MDNR had access to the Notice of
 16 Violation and related supporting materials from US EPA?
 17 A. Yes.
 18 Q. And are you aware of whether the state of
 19 Missouri and the United States have entered into a joint
 20 prosecution agreement related to this lawsuit?
 21 A. Yes, we have.
 22 Q. And do you have an understanding as to whether
 23 or not that agreement is currently in effect?
 24 A. Yes, it is in effect.
 25 Q. Are you aware of any state -- setting aside

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1 Missouri -- that has objected to US EPA's NSR Enforcement
 2 Initiative against power generators?
 3 MR. HANSON: I'm just going to object to the
 4 extent that that's outside the scope of the deposition
 5 notice.
 6 BY MR. BONEBRAKE:
 7 Q. You can go ahead and answer.
 8 A. Could you repeat the question?
 9 Q. The question was whether you were aware
 10 whether any states other than Missouri have objected to the
 11 NSR Enforcement Initiative.
 12 A. And do you mean by objected? I guess I
 13 don't --
 14 Q. Raised concerns --
 15 A. Uh-huh.
 16 Q. -- or complaints about the Enforcement
 17 Initiative.
 18 A. I wouldn't characterize it as objective.
 19 We -- when we meet with other states, we talk about
 20 Enforcement Initiatives. I -- I wouldn't characterize
 21 anything as object -- objections, so.
 22 Q. And it sounds like -- do you have regular
 23 meetings with other states?
 24 A. We do. We coordinate especially with the
 25 other states in Region 7, which are Iowa, Kansas and

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1 Nebraska. We have conference calls occasionally. We used to
 2 meet on a regular basis before travel restrictions due to
 3 budgets. We would meet one or two times a year to discuss
 4 permitting and Enforcement Initiatives. And so we do have
 5 correspondence with the other states.
 6 Q. We were talking earlier about permit engineers
 7 within the construction permit unit.
 8 A. Yes.
 9 Q. While you have been at MDNR, has there been
 10 any differentiation among the -- or organization among the
 11 engineers that would divide permit engineers on the one hand
 12 with respect to major sources, for instance, and minor
 13 sources on the other?
 14 A. Depending on workload you mean.
 15 Q. Or from an organizational perspective.
 16 A. Not a specific separation of duties. By
 17 nature of the PSD permitting process, the senior engineers
 18 tend to obtain the PSD permit projects. We have different
 19 engineers in our section by classification. They're called
 20 Engineer Is, IIs, and IIIs. The Engineer IIIs require an
 21 engineer professional license. Historically, the PSDs are
 22 assigned to Engineer IIIs, if they are available for
 23 workload, but that's not always the case, so any of the
 24 permit engineers can assist on PSD projects.
 25 Q. And you mentioned PSD permits were

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1 historically assigned to Engineer IIIs?
 2 A. Yes.
 3 Q. What about applicability determinations
 4 relating to PSD? Were those also assigned to Engineer IIIs?
 5 A. Not necessarily. The applicability
 6 determinations are handled by the entire section staff.
 7 Q. And all three types of engineers you mentioned
 8 while you have been at MDNR have reported up to the
 9 construction permit unit manager?
 10 A. Yes, that's correct.
 11 Q. Who had assign -- assigning authority from
 12 1999 to the present? And we can talk about in terms of
 13 positions.
 14 A. Okay.
 15 Q. First of all, with respect to PSD permits
 16 themselves?
 17 A. You mean assigning the actual permits?
 18 Q. Right, so from -- to effect formal issuance of
 19 the PSD permit.
 20 A. I brought a cheat sheet. I apologize. The
 21 assigning of the permits is in recent years been given to the
 22 program director, delegated from our department director to
 23 the program director. And so the history of our program
 24 directors -- I am the program director right now. Prior to
 25 me, it was Jim Cavanaugh. Prior to Jim, it was Leanne

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1 Tippet Mosby. And then Tom Wilson for a period of six
 2 months. And then Roger Randolph. And that goes back to
 3 1994. I didn't go back further than that.
 4 Q. Okay. All right. So as I understand it,
 5 then, the position with issuance authority for PSD permits is
 6 the director?
 7 A. Program director, yes, that's correct.
 8 Q. What about with respect to minor new source
 9 review permits, that is construction permits for minor
 10 sources?
 11 A. Right. All permits are assigned by the
 12 program director, whether it's PSD, minor, or what we call
 13 our De Minimus permits.
 14 Q. And from 1999 to the present, who within the
 15 air program has had the authority to sign non-applicability
 16 determination letters?
 17 A. The applicability determination, or we refer
 18 them as no permit required letters are signed generally by
 19 either the construction permit unit chief or the permit
 20 section chief. It depends on who was in the office and the
 21 preference. The permit section chief from 1999 forward would
 22 be Randy Raymond until 2003, and then Refaat Mefrakis, that's
 23 R-e-f-a-a-t M-e-f-r-a-k-i-s, for a period until May 2004.
 24 And then I was the permit section chief from May 2004 until
 25 July 2011, and then Kendall Hale from July of 2011 until

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1 present.
 2 Q. Okay. So from -- from 1999 to the present,
 3 the managers of both the construction permit units and
 4 sections had authority to issue PSD non-applicability, as you
 5 said no permit required letters?
 6 A. That's correct.
 7 Q. Now you were looking at a document that was I
 8 think refreshing your recollection as we talked.
 9 A. Yes.
 10 Q. Would there be any objection to marking this
 11 as an exhibit?
 12 MR. HANSON: None from the United States.
 13 MR. DUGGAN: No objection.
 14 MR. BONEBRAKE: Go ahead and mark this as
 15 Exhibit 4.
 16 (Exhibit No. 4 was marked for identification.)
 17 MR. BONEBRAKE: Sorry to confiscate your
 18 paper.
 19 THE WITNESS: I was aware of that, but I
 20 needed that to help myself.
 21 BY MR. BONEBRAKE:
 22 Q. And I appreciate getting accurate information,
 23 so thank you.
 24 Now we've talked a little bit about the -- the
 25 PSD program. And are US EPA's PSD regulations found among

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1 other places in 40 CFR 5221?
 2 A. That's correct.
 3 Q. And does MDNR implement the PSD program in
 4 Missouri?
 5 A. Yes.
 6 Q. And has it since at least 1990?
 7 A. That's correct.
 8 Q. And does MDNR implement the PSD program in
 9 Missouri through state rules that US EPA approves?
 10 A. That's correct.
 11 Q. And does Missouri currently have construction
 12 permit rules, including PSD rules that are SIP approved by
 13 United States?
 14 A. Yes.
 15 Q. And what does SIP approval mean from your
 16 perspective?
 17 A. SIP approval is we provide our rules to EPA
 18 how we are going to implement the federal rules. In many
 19 instances, we just adopt the federal rules by reference but
 20 we provide that to EPA and then they approve our regulations
 21 into the State Implementation Plan for the State of Missouri.
 22 Q. And then once those rules are adopted at the
 23 state level and approved federally, they are implemented by
 24 MDNR?
 25 A. That's correct.

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1 Q. Including through the issuance of PSD and
 2 other construction permits and issuance of applicability
 3 determinations by DNR?
 4 A. Yes.
 5 Q. Are you familiar with the concept of
 6 delegation rather than SIP approval?
 7 A. Yes.
 8 Q. And what's your understanding of the
 9 difference?
 10 A. Delegated states do not have a State
 11 Implementation Plan per se. They just use the federal rules
 12 automatically. They do not adopt their own state rules.
 13 Q. So in delegated states, the states simply
 14 implement the federal rules?
 15 A. Yes.
 16 Q. Whereas in SIP -- SIP-approved states, the
 17 state like Missouri implements its own rules?
 18 A. That's correct.
 19 Q. And where are the Missouri air construction
 20 permit rules currently found in the Missouri administrative
 21 code?
 22 A. They are in 10 CSR 10-6.060.
 23 Q. And does that include 6.061 as well?
 24 A. 6.061 is construction permit exemptions, yes,
 25 that's correct.

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1 Q. And are definitions found in 10-6.020?
 2 A. That's correct.
 3 COURT REPORTER: Im sorry, what was the
 4 number?
 5 MR. BONEBRAKE: 10-6.020.
 6 BY MR. BONEBRAKE:
 7 Q. And those Missouri rules contain construction
 8 permit requirements and applicability provisions for both
 9 major and minor sources?
 10 A. That's correct.
 11 Q. And so they contain applicability requirements
 12 for both PSD and minor NSR?
 13 A. Yes.
 14 Q. By the way, I'll use the term major source
 15 during the course of the deposition today. We probably
 16 should be on the same page with respect to what that means.
 17 A. Okay.
 18 Q. So when you think of the term "major source,"
 19 what does that mean to you?
 20 A. A major source to an air permit person is a
 21 air pollutant source that emits above what we consider the
 22 major air thresholds. Again, it depends on the type of
 23 source, but it's generally 250 tons of pollutants or more.
 24 Q. And is -- is PSD potentially applicable only
 25 to major sources?

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1 A. To -- it is -- PSD is applicable by the
 2 project, so it does not matter the source that it's applying.
 3 It depends on what the project is, so.
 4 Q. Let me ask the question another way.
 5 A. Okay.
 6 Q. If a project is undertaken at a minor source,
 7 or the project itself wouldn't cause an emission increase
 8 above major source levels, could that project trigger PSD?
 9 A. If the project itself was not major, no, it
 10 would not be PSD.
 11 Q. So would it be true that typically from a
 12 review perspective, for changes at existing sources, focus
 13 would include PSD where major sources are involved?
 14 A. I hesitate to say yes. Because of the permit
 15 writer, you don't exclude the source from looking at PSD.
 16 It's very project specific. So you look at what the project
 17 is to determine PSD applicability.
 18 Q. Okay. So when MDNR is implementing its
 19 construction permit rules, that suggests to me, and let me
 20 say and tell me if you agree, the permit engineers and
 21 managers at MDNR are looking at the applicability
 22 requirements of those rules, PSD and otherwise, for all
 23 projects that come in to ensure that if a PSD is triggered,
 24 PSD is applied and if PSD is not triggered, there's some
 25 other requirement in those permit rules that is triggered?

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1 A. Yes, that's correct.
 2 Q. Now we've talked a little bit about MDNR's
 3 role with respect to construction permit program in Missouri,
 4 including PSD. Does US EPA have a role in that program?
 5 A. Yes, they do.
 6 Q. What do you perceive to be US EPA's role?
 7 A. I view US EPA's role as supporting of us,
 8 MDNR, in any permit or even any action we undertake in the
 9 program. They are a partner in implementing the Clean Air
 10 Act in the state of Missouri.
 11 Q. And does MDNR send copies of PSD permits to US
 12 EPA?
 13 A. Yes.
 14 Q. Are those sent to US EPA in draft form before
 15 issued?
 16 A. We send them the draft permit when we issue
 17 the draft permit for public notice. In some instances we
 18 share it with them ahead of time. But we are required to
 19 share the draft on public notice with them.
 20 Q. What about with respect to minor construction
 21 permits? Are those permits provided to US EPA when issued by
 22 MDNR?
 23 A. Not all the time, no.
 24 Q. What would be the circumstances in which such
 25 permits would be provided to US EPA?

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1 A. We would coordinate with EPA on minor permits.
 2 If there is an issue that we had inquired their assistance,
 3 and then we would follow-up with the final permit. In most
 4 cases, the minor permits are not shared with EPA.
 5 Q. Are PSD applicability determinations when made
 6 by MDNR provided to US EPA?
 7 A. Again, it depends on the circumstance. It's
 8 very case by case. When you say PSD applicability, it would
 9 depend on the instance and the project. In many times, we
 10 make the determination on our own and would send -- send the
 11 letter to the company. And then we would not necessarily
 12 send a copy to EPA. Again, if we had asked for EPA's
 13 assistance in making the determination, we would follow-up
 14 with the final copy of the letter.
 15 Q. Okay. So just so the record's clear on this,
 16 I think we referred to them as no permit required letters?
 17 A. Yes.
 18 Q. In some instances but not all, those are sent
 19 to US EPA?
 20 A. That's correct.
 21 Q. And in what instances, then, specifically come
 22 to mind would PSD no permit required letters be -- yeah, PSD
 23 no permit required letters be sent to US EPA?
 24 A. If we have questions on our determination and
 25 need some guidance and support on making our determination,

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1 if we are reviewing EPA documents, just wanting to get EPA's
 2 feedback on what our recommended determination is. We have
 3 regular coordination calls with EPA, especially in regards to
 4 permitting. I believe they still meet monthly via conference
 5 call to discuss certain projects, any projects that we may
 6 need assistance with. It's a resource for us. EPA Region 7
 7 is a resource for us and we utilize them in that manner.
 8 Q. These coordination calls, and I think those --
 9 those were the words that you used.
 10 A. Yes.
 11 Q. Those are undertaken on a monthly basis?
 12 A. Yes.
 13 Q. And -- and for how long have those been --
 14 calls been going on a monthly basis?
 15 A. As far as I've been with the agency, there
 16 have been coordination calls. And as long as I was permit
 17 section chief, we coordinated mostly on a monthly basis. It
 18 depends on the -- EPA Region 7 assigns one staff person for
 19 the state of Missouri, for example, as our permit coordinator
 20 and it really depends on the permit coordinator and how
 21 frequently he or she wanted to talk with us and how
 22 frequently we needed to talk with them. But in recent years,
 23 at least in the last seven or eight years, it's been monthly.
 24 Q. And are these sessions by telephone or
 25 in-person?

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1 A. Yes, by telephone.
 2 Q. By telephone. And who participates for MDNR
 3 and US EPA respectively?
 4 A. For the air program, the permit section chief,
 5 which used to be me and now it's Kendall Hale, and then the
 6 unit chiefs, the operating permit unit chief and the
 7 construction permit unit chief. Right now, that's Susie
 8 Heckenkamp and Mike Stansfield. And when I was permit
 9 section chief, it was Mike Stansfield and Kendall Hale.
 10 Q. And who participates for US EPA?
 11 A. As I mentioned, we have a state coordinator
 12 for permits and that is currently Bob Cheever. And before
 13 that, it was Eric Sturm. And before that, it was Tamara
 14 Freeman. And then other EPA staff attend as-needed.
 15 Sometimes John Noedel is a frequent participant as well as
 16 their manager, Mark Smith.
 17 Q. What's your understanding of the -- of the
 18 duties of the Region 7 coordinator? I think that was the
 19 term that you used.
 20 A. Yes.
 21 Q. What's your understanding of that
 22 coordinator's duties?
 23 A. Again, to support Missouri MDNR and answer
 24 questions. Anytime we have a question on interpretation of a
 25 federal rule or a guidance document, we pick up the phone or

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1 send an e-mail to EPA and ask questions. Then he or she
 2 would -- if they did not know the answer, would research it
 3 and get back with us.
 4 Q. Is -- is there an agenda that gets put
 5 together for these monthly calls?
 6 A. Sometimes. Again, it depends on the
 7 coordinator. EPA led those calls and sometimes they would
 8 send an agenda and sometimes it would be a real informal
 9 discussion format.
 10 Q. Were any minutes kept of these sessions?
 11 A. Not formally. Sometimes notes were taken, but
 12 not detailed. A lot of it was just discussion, how to handle
 13 things and updates on certain projects that EPA was
 14 interested or also EPA would share with us updates on
 15 different states' projects that may have come to our
 16 attention.
 17 Q. And do you know if -- if a regular agenda item
 18 in these sessions would be MDNR's PSD permitting, including
 19 applicability determinations?
 20 A. When you say regular agenda item, we wouldn't
 21 list it that way. It's more project specific. We would
 22 update them on any PSD projects in-house, the status as they
 23 would need to be aware when they were receiving the draft
 24 permits so they could prepare staff time to review the permit
 25 and the application. If we had any determination requests

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1 that we needed assistance with, those would be listed on the
 2 informal agenda as well as topics of discussion.
 3 Q. So for instance if MDNR was looking for
 4 assistance on whether or not a particular project would
 5 trigger PSD, that would be an item you would expect to be a
 6 part of these regular sessions?
 7 A. Yes.
 8 Q. In addition to these coordinating sessions,
 9 are there other means by which MDNR provides to US EPA
 10 information about how it's implementing the construction
 11 permitting program in Missouri?
 12 A. I mean, regular coordination in conversations,
 13 we also, you know, participate in meetings with EPA at their
 14 request and also the program review that EPA does. I'm not
 15 sure if that's what you're asking, but.
 16 Q. The program review, is that -- is that an
 17 audit function?
 18 A. Yes.
 19 Q. Okay.
 20 A. Yes.
 21 Q. And how often does US EPA audit Missouri's
 22 construction permitting program?
 23 A. I believe they are required to review --
 24 Region 7 in particular is required to review each state once
 25 every four years. And there are three or four states in

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1 their region and we call it review not audit.
 2 Q. Okay. So I'll use that term. And do you know
 3 whether MDNR's construction permit program has been reviewed
 4 by Region 7 every -- every four years?
 5 A. We just completed one in 2012. EPA chose in
 6 2008 to do a review of two of our local agencies, which we
 7 had at the time St. Louis County and St. Louis City, and
 8 therefore did not do a formal review of the MDNR program in
 9 2008, but yes, there was one in 2004. Then I think 2001. So
 10 approximately every four years, so.
 11 Q. And do you know when the review started?
 12 A. The reviews?
 13 Q. The first of the reviews.
 14 A. The first of the reviews? I'm not sure how
 15 long -- I assume they've gone back every four years. I don't
 16 know what EPA's requirement on that was. I'm aware of the
 17 ones from 2000 on.
 18 Q. And has it been the typical review process by
 19 US EPA to look at PSD permits issued by MDNR and permit
 20 applicability -- PSD permit applicability determinations made
 21 by MDNR?
 22 A. The review itself does not encompass the PSD
 23 permits because EPA reviews those as they're processed. They
 24 see those draft permits, they see the final permits, and they
 25 also review those documents when they're attached to the

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1 Title V permits that they review. The review encompasses
 2 more our minor source permitting program and so any
 3 determinations we would have made no permit required, yes,
 4 they -- they would cover those possibly in the review.
 5 Q. Would it -- would it be your expectation,
 6 then, that every four years when US EPA Region 7 does the
 7 review, that it's going to be looking at the no permit
 8 determination letters issued by MDNR in the -- in the
 9 proceeding four years?
 10 A. Well, just due to staff time and volume of
 11 material, not every permit determination is reviewed. And
 12 EPA has changed how they do the reviews in past years. In
 13 2004, for example, they did send staff to our office to look
 14 through various files in our file room and review random
 15 files, no permit required letters that we issued. They did
 16 not review all of them.
 17 We issue, depending on the year, 500 to 900
 18 permit actions and that includes everything we do in the
 19 permit section, no permit determin -- determination letters,
 20 minor permits, De Minimus permits, PSD permits, letters to
 21 sources. So they can't review everything we do, obviously,
 22 so they do random checks.
 23 They did that in 2004 and I believe in 2001.
 24 2012, they did not do a detailed file review. EPA, it's my
 25 understanding, nationally has changed the way they do program

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1 reviews. And they're no longer needing to do end-of-file
 2 reviews. They come in and meet with the program and ask
 3 questions and go through. I don't believe in 2012 they
 4 looked at any specific no permit required letters.
 5 Q. Of those 500 to 900 permit actions, what
 6 portion of that would you say on average would be no permit
 7 required letters?
 8 A. Oh, I did not look at that, but we issue, and
 9 this is very approximate, probably a hundred no permit
 10 required letters a year. Again, it's very dependent on the
 11 year and the number of permits we issue and the facilities
 12 asking us for the determinations, so.
 13 Q. And -- and does US EPA provide feedback to
 14 MDNR in connection with the review process about how MDNR is
 15 doing in implementing construction permitting in Missouri?
 16 A. Yes.
 17 Q. And has US EPA ever indicated that MDNR was
 18 not properly implementing the PSD program?
 19 A. Again, that wouldn't be part of the program
 20 review because they would have commented on the PSD permits
 21 in the process.
 22 Q. Uh-huh.
 23 A. There are always recommendations in the review
 24 on how to do things better or more efficiently. My
 25 recollection of the recent reviews is there's not been

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1 anything specific on the PSD program itself.
 2 Q. And so do -- do you have any recollection of
 3 US EPA ever raising a concern with MDNR about how MDNR was
 4 determining PSD applicability?
 5 A. I'd say there's always comments and -- and
 6 different interpretations, so through the PSD permitting
 7 process, and again, this wouldn't be in the program review
 8 because PSD permit process EPA is very involved with us
 9 through that process, and there's always conversations and
 10 questions on our interpretation and EPA's interpretation.
 11 Q. Would you -- would you say it's fair to say
 12 that through all the various interactions between MDNR and
 13 Region 7, that Region 7 has a good understanding of how MDNR
 14 is implementing the construction permitting program in
 15 Missouri?
 16 A. Yes.
 17 MR. HANSON: Objection, lack of foundation.
 18 BY MR. BONEBRAKE:
 19 Q. You can go ahead and answer.
 20 A. Yes.
 21 Q. I'd like to talk a little bit about the actual
 22 PSD permitting process --
 23 A. Okay.
 24 Q. -- in -- in Missouri. And what is the -- the
 25 general process within MDNR from -- from when an application

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1 comes in to permit issuance?
 2 A. Uh-huh. Any permit application?
 3 Q. PSD is what I'm interested in.
 4 A. PSD. Well, once an application is received
 5 and it is identified as a PSD, prior to that, most -- I
 6 should say most PSD projects we have had some preapplication
 7 meeting with the applicant because this is typically a major
 8 project. So the first time we're hearing of it is not at the
 9 application process itself.
 10 But once the application comes in, it is
 11 assigned to a permit reviewer and the application is reviewed
 12 for completeness. A PSD application would have multiple
 13 pieces, most likely an air dispersion modeling analysis as
 14 well which is done by our office, review of the BACT
 15 analysis, the Best Available Control Technology analysis.
 16 And is that?
 17 Q. That's a good overview, thank you.
 18 A. Okay.
 19 MR. BONEBRAKE: Let me go ahead and mark for
 20 identification, David, I think we're up to Exhibit No. 5.
 21 MR. LORING: Yes.
 22 (Exhibit No. 5 was marked for identification.)
 23 BY MR. BONEBRAKE:
 24 Q. Okay. We're going to show you an exhibit
 25 that's been marked for identification as No. 5 and the front

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1 page is labeled Construction Permit Review Procedure Manual.
 2 It starts with Bates-stamp No. AMO 1019521-MDNR and runs
 3 through 578-MDNR. And I was going to mention to you as well
 4 for clarity that you'll see the Bates stamp number, there's
 5 two of the numbers on the lower right of this document and
 6 the MDNR prefix and followed by a number is an indication
 7 that the document was produced to us by MDNR.
 8 A. Okay.
 9 Q. And then the AM prefix followed by some
 10 numbers and then MDNR is an indication that Ameren Missouri
 11 in turn produced that document to US EPA.
 12 A. Okay.
 13 Q. And do you recognize this -- this document?
 14 A. I do.
 15 Q. And -- and what is this document?
 16 A. This would be one iteration of an internal
 17 procedure for the construction permit unit on how to review
 18 and process construction permit applications.
 19 Q. And this has a revised date at the lower right
 20 of August 7, 2000. Do you see that?
 21 A. Yes.
 22 Q. Would there have been previous iterations of
 23 this manual?
 24 A. There were. And to be quite honest, this date
 25 a lot of times changed when you open the document and if you

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1 saved it, so there were many iterations of this document.
 2 Some making minor changes and some maybe not making any
 3 changes, but yes.
 4 Q. So the manual has been kind of a living
 5 document that's been updated over time; is that right?
 6 A. Yes, it -- it's -- one characterization of
 7 this is it's been draft for awhile. When we have staff time,
 8 we work on it to update it. Unfortunately there wasn't a lot
 9 of staff time at some point to update it, so this was the
 10 probably preliminary version of the documents that we now
 11 maintain on our web and the documents that I mentioned I
 12 reviewed earlier, so yes.
 13 Q. That was going to be a question that I asked.
 14 A. Yes.
 15 Q. So you reviewed in preparation for the
 16 deposition today the current version of this manual?
 17 A. Yes.
 18 Q. And that current version is located on MDNR's
 19 Web site?
 20 A. That's correct.
 21 Q. And why is that document on MDNR's Web site?
 22 A. Why is it on the Web site?
 23 Q. Correct.
 24 A. Well, we have found over the years the more
 25 information we provide on -- on how we do things and how we

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1 interpret it, if the applicants have that prior to submitting
 2 the application, it -- it does assist in more complete
 3 applications and helps us review the applications, helps the
 4 applicant complete them, so we make that public.
 5 Q. So is one of the reasons that the -- that the
 6 manual's posted on the Web site to provide guidance to
 7 sources in Missouri?
 8 A. Yes.
 9 Q. Regarding construction permitting requirements
 10 in Missouri?
 11 A. Yes, that's correct.
 12 Q. And do you know when the manual was first
 13 posted to MDNR's Web site?
 14 A. I'm not specific on the date. It has not been
 15 available on the Web site for too long. I would say probably
 16 a year or two.
 17 Q. And before that time, was it publicly
 18 available in some form?
 19 A. We had it internal in our office. If someone
 20 asked for it, we would share it -- share it with them. We
 21 had different documents on the Web. We just recently in the
 22 last year went -- probably two years went through an in-depth
 23 review in order to post the document on the Web.
 24 Q. And as -- as we talked about this particular
 25 version is dated August 7, 2000 --

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1 A. Uh-huh.
 2 Q. -- so would your thought be that this
 3 particular version had not been posted to MDNR's Web site?
 4 A. That's correct.
 5 Q. Nonetheless, would this have been a document
 6 that would have been available to permit engineers and
 7 construction permit managers within MDNR?
 8 A. Yes.
 9 Q. And was it made available to them to help
 10 guide their decisions regarding construction permitting in
 11 Missouri?
 12 A. Yes, it's one tool, yes.
 13 Q. So this was a -- an official compilation to
 14 help guide permit writers and those making permitting
 15 decisions?
 16 A. Yes.
 17 Q. And to the extent then publicly available,
 18 would you expect sources in Missouri to consult and rely upon
 19 the contents of this manual?
 20 A. This particular manual?
 21 Q. Well, once the version was posted and publicly
 22 available.
 23 A. Yes, yes, if it's -- now that it is available
 24 on the Web, we point that location out to applicants when
 25 they ask us and it provides guidance to them.

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1 Q. And even before that, MDNR wanted the manual
 2 to be correct because construction permit engineers and
 3 managers were also using it; is that right?
 4 A. That's correct.
 5 Q. I had a couple questions for you related to
 6 some items. It's on page 5 of 53 in the internal numbering
 7 of the document.
 8 A. Uh-huh.
 9 Q. And there's section two is time frames and
 10 tracking.
 11 A. Uh-huh.
 12 Q. And there is a reference there to new permit
 13 section seven or eight. The new permit section seven or
 14 eight, would that include PSD permits?
 15 A. Yes, section eight is where the PSD rules are
 16 located.
 17 Q. Okay. And the overall processing time here is
 18 listed as 184 days. Can you describe for us what that means?
 19 A. In our regulations and our state statutes,
 20 there's a regulatory time frame for issuance of construction
 21 permits. And what that means is when the application comes
 22 in, a clock starts for our permit reviewers to issue the
 23 permit within that time frame. If we do not issue it within
 24 that time frame, we are not allowed to collect permit review
 25 fees. It doesn't mean that the permit is automatically

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1 issued in 184 days, it's just if we take longer than that
 2 statutory time frame, we cannot charge fees and that is by
 3 our state reg and our state statute.
 4 Now, the caveat to that time frame is that
 5 does not include days that we have put the project on hold
 6 for various reasons. The main reason is asking for more
 7 information from the applicant. If the application comes in
 8 and is not complete, we ask for more information and that
 9 time does not count towards the overall processing time.
 10 Q. And how often does an application come
 11 incomplete where MDNR needs to ask for follow-up to start the
 12 clock?
 13 A. For major?
 14 Q. For PSD.
 15 A. For PSD permits, I would say almost a hundred
 16 percent of the time.
 17 Q. So is it -- is it fair to say, then, that PSD
 18 permits are virtually never issued in 184 days of initial
 19 permit application submission?
 20 A. That -- I believe we've issued one in my
 21 tenure within 148 days, so.
 22 Q. And do you have a sense of the time required
 23 to pull together a PSD permit application?
 24 A. It would depend on the project because it's
 25 very case by case. There are -- I hate to use the word

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1 simple, but there are simple PSD permit applications, but
 2 then there are also more in-depth. For example, if it's for
 3 a brand new facility, Met-Chem, for example, that application
 4 would be quite extensive.
 5 Q. And on average, what would you say is the
 6 length of time from initial PSD permit application to
 7 issuance by MDNR of a PSD permit?
 8 A. With the data -- in our data base, I could
 9 come up with an average, but it's not going to mean much
 10 because, again, every PSD application is different. And we
 11 could issue one in, you know, 184 days. We could issue one
 12 in two years. I do believe our -- our longest one is about
 13 six years, but I'm not overly proud of that. So the average
 14 doesn't mean a whole lot.
 15 We strive -- currently our goal is to
 16 communicate with the source prior to the application to make
 17 it as complete as possible so we can issue it closer to that
 18 184-day time frame. I'd say our goal rather than our average
 19 is six months to a year from receiving the application.
 20 Q. Would you say, though, that a -- a significant
 21 portion of PSD permits are issued beyond a year?
 22 MR. HANSON: Objection, vague and ambiguous.
 23 THE WITNESS: Well, again, they're very case
 24 by case, so it depends how complete the application is. If
 25 the application is complete and we work with the applicant

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1 prior to submittal of the application, it's very possible to
 2 get close to that 184 days because we're only asking for
 3 clarification on the BACT analysis, for example, there's
 4 usually additional questions on that, additional
 5 documentation needed. So again, I would say our goal is --
 6 is close to that six months as possible, but realistically,
 7 less than a year is what I share with my upper management
 8 would be our goal.
 9 BY MR. BONEBRAKE:
 10 Q. Okay.
 11 A. But it's very dependent on the applicant as
 12 well, so that's out of our control.
 13 Q. Is it -- is it true that a PSD applicant must
 14 wait for the issuance of the PSD permit before they can
 15 commence construction of the project at issue in the PSD
 16 permit?
 17 A. That's correct.
 18 Q. And if they commence construction before
 19 issuance of the PSD permit, are they in violation of the PSD
 20 requirements?
 21 A. Yes, that is a violation.
 22 Q. And I think you mentioned the term BACT
 23 before, which is B-A-C-T?
 24 A. Yes.
 25 Q. And is BACT an emission limitation?

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1 A. It -- the BACT is actually an analysis, which
 2 is part of the requirement of the PSD application. The
 3 determination of BACT is typically the control equipment. It
 4 can turn into an emission requirement, it can turn into a
 5 requirement to install a certain control. But it is not
 6 always a emission requirement.
 7 Q. And does a BACT requirement exist before it is
 8 set forth in a PSD permit?
 9 MR. HANSON: Objection, vague and ambiguous.
 10 BY MR. BONEBRAKE:
 11 Q. Let me try it again.
 12 A. Okay.
 13 Q. I think you mentioned that a BACT requirement
 14 can be either an emission control and/or a emission rate or
 15 other form of emission limitation; is that correct?
 16 A. The -- this is the way I view it. A BACT
 17 analysis in the PSD is a technology determination, and then
 18 that determination can turn into an emission limitation. I
 19 wouldn't call a BACT an emission limit. I would say the
 20 emission limit could come from the BACT determination.
 21 Q. And the emission limitation, though, is not
 22 determined until MDNR goes through the permitting process; is
 23 that correct?
 24 A. That's correct.
 25 Q. And must the BACT-identified control

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1 technology be installed at the source and operational for the
 2 source to be in compliance with PSD requirements following
 3 issuance of the PSD construction permit?
 4 A. If I'm understanding the question, yes. The
 5 BACT analysis, again, is part of the PSD review. Then the
 6 requirements that the BACT analysis would put in place would
 7 be part of the permit conditions of the PSD permit that the
 8 source would comply with.
 9 Q. Okay. And just to make sure we have this
 10 correct on the record.
 11 A. Okay.
 12 Q. In order for the source to commence operation
 13 following the construction or modification at issue in the
 14 PSD permit, the specified BACT-controlled technology must be
 15 in place and operational at that source before operation
 16 commences; is that correct?
 17 A. If they want to be in compliance with the
 18 permit, yes.
 19 Q. Okay. Has MDNR issued any PSD permits for
 20 boiler tube or turbine changes at existing coal-fired
 21 electric-generated plants?
 22 A. I didn't bring the list of PSD permits with
 23 me. I don't have that specifics. I mean, we've issued
 24 several PSD permits to coal-fired power plants and I don't
 25 remember if boiler tubes were a specific piece of that or

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1 not, so I'd have to look at the permit in question to answer
 2 that.
 3 Q. And -- okay. Do you know if those PSD permits
 4 you have in mind were related to new source construction as
 5 opposed to changes at existing plants?
 6 A. There would be both. We've issued green -- if
 7 you will green-filled, it's a brand new plant -- power plant
 8 construction, PSD permits, but we've also issued
 9 modifications to existing power plants for PSD.
 10 MR. BONEBRAKE: We've been at it for about an
 11 hour and a quarter, so why don't we take a short break, so
 12 let's go off the record.
 13 VIDEOGRAPHER: We're off the record at 9:46.
 14 (A break was held.)
 15 VIDEOGRAPHER: Okay. We are back on the
 16 record after a short break. It's 10:02 a.m.
 17 BY MR. BONEBRAKE:
 18 Q. Mrs. Moore, one clarifying question I wanted
 19 to ask related to a line of discussion that we had before
 20 break. We talked a little bit about no construction permit
 21 required letters?
 22 A. Yes.
 23 Q. And just wanted to confirm that when MDNR
 24 issues a no construction permit required letter, that
 25 letter's indicating there is no construction permit -- that

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1 type of letter is indicating that there is no construction
 2 permit of any kind required for the project being reviewed;
 3 is that correct?
 4 A. It would be a -- based on the information
 5 provided to us and our review, that it is our interpretation
 6 no construction permit is required, yes.
 7 Q. Okay. And no construction of any permit --
 8 including no PSD permit is required; is that correct?
 9 A. Yes.
 10 Q. I'd like to turn now to a new exhibit, I
 11 believe David we're at No. 6.
 12 (Exhibit No. 6 was marked for identification.)
 13 BY MR. BONEBRAKE:
 14 Q. And we're showing you what's been marked for
 15 identification as Exhibit No. 6, and this is a copy of the
 16 Missouri construction permitting rules, I believe with a
 17 vintage looking at the lower left of the first page in 1996.
 18 A. Okay.
 19 Q. And do these look to you to be constructing
 20 permitting rules of Missouri of vintage 1996?
 21 A. It is a definition rule -- yes, it's our
 22 definition rule and I believe also our Construction Permit
 23 Rule 6060 it looks like is here, yes.
 24 Q. And when you use the term "definition rule,"
 25 do you mean 6.020?

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1 A. Yes.
 2 Q. And 6.060 is the actuality construction
 3 permitting rule; is that correct?
 4 A. That's correct.
 5 Q. Were MDNR's construction permitting rules
 6 substantially amended in the mid-1990s?
 7 MR. HANSON: Objection, vague and ambiguous.
 8 THE WITNESS: Could you repeat the question?
 9 BY MR. BONEBRAKE:
 10 Q. Sure. Were there -- were there significant
 11 changes made by Missouri to the construction permitting rules
 12 in the mid-1990s?
 13 A. The specifics of the changes, I can't speak to
 14 whether they were major or not. We would amend our rules
 15 based on federal rules. In that time period you're
 16 mentioning, there was most likely some changes based on the
 17 Clean Air Act amendments. So yes, there would have been
 18 changes at that time.
 19 Q. Does -- does Exhibit 6 look to you to be the
 20 form of rules that was in effect when you started with MDNR
 21 in 1999?
 22 A. It -- what do you mean by the form? I mean,
 23 the actual rule at the time, I mean, this is updated, the
 24 6.060 rule has an update of October of 1996, so that is most
 25 likely what was in place when I started in 1999, but there

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1 may have been some changes. Without looking at the Missouri
 2 register, I don't know.
 3 Q. Are you aware of any significant changes
 4 between '96 and '99 to the Missouri construction permitting
 5 rules?
 6 A. Not that I'm aware of.
 7 Q. Okay. Are you familiar with what's sometimes
 8 called the WEPCo rule?
 9 A. Yes.
 10 Q. And what is your understanding of the
 11 WEPCo rule?
 12 A. The WEPCo rule refers to a -- a case between
 13 EPA and the facility WEPCo, which I'm not going to -- it's a
 14 Wisconsin utility, I believe, and it was a determination
 15 on -- there was several things in there on how
 16 WEPCo calculated emissions and also the use of routine
 17 maintenance. But there are -- there are several guidance
 18 documents in EPA's database on WEPCo.
 19 Q. And -- and just for the record, it's
 20 W-E-P-C-o. And you referred to the case between US EPA and
 21 the entity WEPCo?
 22 A. Yes.
 23 Q. Are you aware of whether or not there was a US
 24 EPA rule that grew out of -- from that case?
 25 A. There were some guidance documents that came

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1 out of that case and I believe some changes to EPA's rules
 2 based on what happened there. I don't know if that was the
 3 sole reason for EPA's rule changes.
 4 Q. Well, do you know if in 1992 US EPA adopted
 5 revisions to its PSD rules that provided for an
 6 actual-to-projected-actual emission test?
 7 A. I don't know -- I can't speak to the date of
 8 1992, but I know there were some changes to EPA's rules based
 9 on projected-actual-to-actual emissions.
 10 Q. And are you familiar with what some folks
 11 refer to as US EPA's reform rule in late 2002?
 12 A. Yes.
 13 Q. And what's your understanding of the reform
 14 rule?
 15 A. The NSR reform rule laid out some items
 16 changing approach on PSD permits. There were several pieces
 17 to that. It included a plat-wide applicability limit.
 18 Initially, it included some pollution control provisions,
 19 clean unit provisions. A couple of those were struck down.
 20 But it essentially changed the PSD NSR process.
 21 Q. And did MDNR incorporate into its state rules
 22 at least some elements of those reform rules in about 2004?
 23 A. Yes. We adopted the NSR reform rules by
 24 reference into our state regs.
 25 Q. Prior to that time, so we're talking about

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1 prior to 2004, and then going back to the date of this rule
 2 in -- in 1996, did MDNR's rules provide for -- explicitly
 3 provide for an actual-to-projected-actual emission test?
 4 A. I don't think the rules specifically provided
 5 for that. That was not our method of operation anyway at the
 6 time. That came about with the reform rules, the
 7 projected-actual-to-actual.
 8 Q. So to your knowledge, MDNR never adopted any
 9 elements of the 1992 WEPCo rule?
 10 A. I would have to review the rule to speak to
 11 that exactly, but I guess I would state in practice, we did
 12 not apply the actual-to-actual WEPCo test.
 13 Q. And are you aware of a statute in Missouri
 14 that provides that Missouri's air rules should be no more
 15 stringent than the federal rules?
 16 A. Yes.
 17 Q. And so do you know if MDNR perceived its 1996
 18 rules to be no more stringent than the WEPCo rule?
 19 A. That -- that's my understanding. 643.05 makes
 20 it that we cannot be more stringent, so yes, that would be
 21 our practice.
 22 Q. So it would be MDNR's practice to interpret
 23 and implement its rules in a -- in a way that would be no
 24 more stringent than the federal counterparts?
 25 A. That's correct.

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1 Q. If you could tum with me to Section 10-6.060,
 2 section 1.
 3 A. Do you have a page number?
 4 Q. I guess it's 21.
 5 A. Okay.
 6 Q. And is that section entitled applicability?
 7 A. Yes.
 8 Q. And is this the section of Missouri's
 9 construction permitting rules that describes when the
 10 construction permitting requirements will be applicable to a
 11 new source or a change at an existing source?
 12 A. Yes.
 13 Q. And if we go to section 1(C) entitled
 14 Construction Operation Prohibited, is this the section of the
 15 Missouri Construction Permitting Rules that prohibits the
 16 modification of an existing source without an appropriate
 17 construction permit?
 18 MR. HANSON: Objection, the document speaks
 19 for itself.
 20 THE WITNESS: Yes.
 21 BY MR. BONEBRAKE:
 22 Q. So as of 1996, if a -- if a source wanted to
 23 determine whether or not Missouri was requiring construction
 24 permitting, the source would go to section 1 of this rule to
 25 look to see if construction permitting was required; is that

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1 correct?

2 MR. HANSON: Objection, lack of foundation,

3 document speaks for itself.

4 THE WITNESS: This – this would be – yes,

5 the first place I would go if I was a source to look for

6 applicability of permitting.

7 BY MR. BONEBRAKE:

8 Q. And when you were a permit engineer and then a

9 manager in the construction permitting section, did you look

10 to the applicability section of the construction permitting

11 rules as a starting place to determine whether or not a

12 construction permit would be required?

13 A. Yes.

14 Q. And if you could turn with me to the

15 definition section, which is 6.020 and the definition of

16 modifications, which is in section capital M, item number 9

17 on page 11. And is this the definition of a modification

18 that would trigger a construction permitting requirement

19 under the Missouri Construction Permitting Rules?

20 A. Yes, if that term modification is used in the

21 6.060, that's correct.

22 Q. And just to refresh your recollection, if we

23 go back to page 21, section 1(C), I believe the first

24 sentence in that section begins, no owner or operator shall

25 commence construction or modification. Do you see that,

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1 ma'am?

2 A. Yes.

3 Q. So would it be correct, then, that for

4 purposes of that – defining that term modification in

5 section 1(C), you would look to the definition on M9 on page

6 11?

7 MR. HANSON: Objection, the document speaks

8 for itself.

9 THE WITNESS: Yes.

10 BY MR. BONEBRAKE:

11 Q. And a modification as defined by the rules

12 provides as follows: Any physical change or change in method

13 of operation of a source operation or tenant air pollution

14 control equipment which would cause an increase in potential

15 emissions of any air pollutant emitted by the source

16 operation.

17 Now, are potential emissions also defined in

18 the rule?

19 MR. HANSON: Objection, same objection.

20 BY MR. BONEBRAKE:

21 Q. And I can give you a shortcut to page 13.

22 A. I was going to say in 1996, it should.

23 Q. Section P, 18.

24 A. Yes.

25 Q. Is that the definition of potential emissions

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1 that's used for purposes of defining – determining whether

2 or not a modification would be expected to occur?

3 MR. HANSON: Same objection.

4 THE WITNESS: Eighteen is the definition of

5 potential to emit, yes.

6 BY MR. BONEBRAKE:

7 Q. So would that be the definition that a permit

8 engineer or permit manager at MDNR would use to determine

9 whether a modification would be expected to occur that would

10 trigger a construction permit requirement?

11 A. It would be the definition we would use to

12 define what the potential emissions of the source are. And

13 that is one piece of the modification, yes.

14 Q. And when you say "one piece of the

15 modification," what do you mean?

16 A. Well, it says any physical change or change in

17 method of operation, so you need to determine that first and

18 then go to the potential emissions. It's all tied together.

19 Q. Okay. So MDNR first needs to determine

20 whether or not there's a physical or operational change; is

21 that correct?

22 A. Yes.

23 Q. And – and assuming the answer is yes, it then

24 would need to determine whether that physical or operational

25 change would cause an increase in potential emissions; is

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1 that correct?

2 A. Yes.

3 Q. And those things must be true in order for

4 there to be a modification of an existing source that

5 requires a construction permit. Is that also true?

6 MR. HANSON: Objection, the document speaks

7 for itself.

8 THE WITNESS: Let me read the definition of

9 modification again. So yes.

10 BY MR. BONEBRAKE:

11 Q. And the term potential emit indicates that the

12 potential emissions of the unit are the emissions operating

13 at full capacity every hour of every day of year; is that

14 correct?

15 MR. HANSON: Same objection.

16 THE WITNESS: Yes, the potential emissions is

17 defined as continuous operation.

18 BY MR. BONEBRAKE:

19 Q. At maximum capacity?

20 A. Yes.

21 Q. And so the concept of changes in utilization

22 are really irrelevant for that definition, right, because the

23 definition assumes constant utilization at full capacity; is

24 that right?

25 MR. HANSON: Objection, vague and ambiguous.

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1 THE WITNESS: Yeah, I'm not understanding the
 2 question. The -- could you repeat that?
 3 BY MR. BONEBRAKE:
 4 Q. Sure. I think we talked about the fact that
 5 the concept of potential emissions assumes utilization at
 6 full capacity every day, every hour, in a year, right?
 7 A. Yes.
 8 Q. So if you're looking at changes in potential
 9 emissions, whether or not the facility would change its
 10 utilization, in fact, is irrelevant because the definition
 11 assumes you're running all out all the time?
 12 MR. HANSON: Vague and ambiguous, lack of
 13 foundation, objection.
 14 THE WITNESS: The -- when we calculate
 15 potential emissions, we need to calculate the potential based
 16 on the operation that's occurring.
 17 BY MR. BONEBRAKE:
 18 Q. Uh-huh.
 19 A. So yes, the potential emissions of that
 20 particular project we will review. So if that project
 21 operated this certain way, that's the potential emission
 22 calculations that we would review. So I'm not understand --
 23 understanding the semantics, I guess.
 24 Q. Well, when MDNR makes a determination of -- of
 25 potential emissions, does it consider the source's actual

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1 anticipated utilization or does it simply assume maximum
 2 utilization?
 3 A. We would calculate the maximum potential of --
 4 of the operation that is presented to us. I'm not
 5 understanding.
 6 Q. Okay. Well, if the source -- if the source
 7 wasn't willing to take a synthetic minor limitation --
 8 A. Right.
 9 Q. -- you, in making a potential to emit
 10 determination, you would not consider actual plant
 11 utilization, you would assume maximum utilization every day
 12 of the year, right?
 13 A. Yeah.
 14 MR. HANSON: Objection, lack of foundation,
 15 vague and ambiguous.
 16 BY MR. BONEBRAKE:
 17 Q. I'm sorry, what was your answer?
 18 A. Yes, I mean, the potential emissions is just
 19 that. It's the potential -- the maximum amount possible that
 20 they could emit with that equipment without any conditions.
 21 Q. And -- and when we go back to the definition
 22 of the term modification, it talks about any physical change
 23 or change in method of operation and it goes on to say which
 24 would cause an increase in potential emissions.
 25 A. Uh-huh.

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1 Q. So under MDNR's construction permit rules to
 2 determine whether a modification would occur, was MDNR then
 3 looking to determine whether a proposed activity at an
 4 existing source would change the potential to emit of that
 5 source?
 6 MR. HANSON: Objection, lack of foundation.
 7 THE WITNESS: I'm not understanding the
 8 direction of the question, if you could rephrase.
 9 BY MR. BONEBRAKE:
 10 Q. Okay. We'll try again.
 11 A. Okay.
 12 Q. The definition of modification uses the words
 13 which would cause an increase in potential emissions.
 14 A. Right.
 15 Q. Right?
 16 A. Yes.
 17 Q. That suggests to me that when MDNR makes a
 18 determination of whether a modification would be expected to
 19 occur, it is looking at whether the physical or operational
 20 change causes the potential emissions of the emission unit at
 21 issue to change. Is that your understanding as well?
 22 A. I would phrase it as we are looking at any
 23 modification that is going to increase emissions. And the
 24 source would be providing that information to us, that they
 25 are going to change this equipment, change this method of

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1 operation and in doing so, this is the change of emissions
 2 that we anticipate. That's how I would phrase that. I don't
 3 know if that answered your question or not.
 4 Q. Well, the definition of modification refers
 5 specifically to potential emissions; correct?
 6 A. Yes.
 7 Q. So when we're looking at whether emissions are
 8 going to change, as you put it, isn't the rule directing MDNR
 9 and sources to look at whether there's going to be a change
 10 in potential emissions?
 11 A. Yes, that's -- definition of modification does
 12 state potential emission.
 13 Q. And so when MDNR made applicability
 14 determinations under this rule, was it looking at changes in
 15 potential emissions, if any, of an emission unit?
 16 MR. HANSON: Objection, lack of foundation.
 17 THE WITNESS: Based on the definition, we
 18 would look at the increase in potential emissions, yes.
 19 BY MR. BONEBRAKE:
 20 Q. And is that consistent with your understanding
 21 of MDNR's actual applicability determination practice from
 22 the mid-1990s up until the reform rule changes which you
 23 mentioned earlier were adopted?
 24 A. Right.
 25 MR. HANSON: Objection, vague and ambiguous.

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1 THE WITNESS: That would fit my understanding
 2 of -- of what we did and that we would look at a project that
 3 was submitted to us as a modification and look at the
 4 increase in potential emissions, yes.
 5 BY MR. BONEBRAKE:
 6 Q. Okay. So if there were a physical or
 7 operational change, but that physical or operational change
 8 would not be expected to change the emission unit's potential
 9 to emit, there would be no modification --
 10 MR. HANSON: Objection, lack of foundation.
 11 BY MR. BONEBRAKE:
 12 Q. -- correct?
 13 A. I would -- it -- I would need to look at a
 14 specific case for that, but in general, that would fit the
 15 definition of modification, yes. But it's hard to say that
 16 that would apply in every case without looking at a case by
 17 case example.
 18 Q. I'll have a few for you.
 19 A. I'm sure you will.
 20 Q. And absent a modification, there's no
 21 construction permit requirement, I think we talked about that
 22 before, but that's correct as well; is it not?
 23 A. Yes.
 24 Q. Is it -- is it true that the potential
 25 emissions of a unit can change in only one of two ways;

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1 either an increase in design production capacity or a change
 2 in the emission rate?
 3 A. The potential emissions of the entire
 4 installation or just a --
 5 Q. Of the emission unit is where I'm focused.
 6 A. Of the emission unit? There is one other
 7 situation that would come to mind and we refer to that as a
 8 removal of a bottleneck. So if you have a piece of equipment
 9 that has a maximum amount of design rate but is limited lower
 10 than their maximum design rate by a previous piece of
 11 equipment and then you remove that piece of equipment and so
 12 the bottleneck is gone, that could also increase potential
 13 emissions.
 14 Q. Okay. So those are the three scenarios in
 15 which the potential emissions of an emission unit could
 16 change?
 17 A. Those are the most common.
 18 Q. Okay. But otherwise, changes to an existing
 19 emission unit that do not eliminate a bottleneck, do not
 20 change emission rate and do not change production capacity,
 21 don't change the potential to emit of the emission unit; is
 22 that correct?
 23 MR. HANSON: Objection, compound, lack of
 24 foundation.
 25 THE WITNESS: I would say that covers most of

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1 the situations, but there are a lot of specifics that I may
 2 not be thinking of that -- that could. So it -- everything
 3 is case by case in our world.
 4 BY MR. BONEBRAKE:
 5 Q. Uh-huh. Well, can you think of any others
 6 than those three?
 7 A. Well, what you state like I can think of if
 8 you change the type of fuel, and I don't know if that fits in
 9 one of your categories.
 10 Q. Emission rates was one of my categories.
 11 A. Yeah, so that would probably fall into that.
 12 Q. Let me go back to the manual, which we had
 13 marked earlier as Exhibit No. 5. And if I could turn your
 14 attention to page 20 of that manual, it's internal 20 of 53
 15 page marking.
 16 A. Okay.
 17 Q. And I think we determined earlier that this
 18 was the August 7, 2000 revised version of this -- of this
 19 manual; is that correct?
 20 A. Yes. It appears to be the case.
 21 Q. All right. And does figure 3, applicability
 22 flowchart, does that -- does that provide an indication of
 23 how construction permit applicability is to be determined?
 24 A. This is one version of many flowcharts created
 25 to try and explain the applicability process in permitting,

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1 yes.
 2 Q. Okay. The first -- is the first step to find
 3 the existing installation potential emissions?
 4 A. That's correct.
 5 Q. And the installation, is that MDNR's version
 6 of the -- the word "source?"
 7 A. I don't know the definition of source, but the
 8 definition of installation for MDNR is the -- it encompasses
 9 the entire plant, if you will.
 10 Q. So when we talked earlier about whether or not
 11 a facility was a major source, it would be -- at MDNR, the
 12 question would be whether the installation was major; is that
 13 correct?
 14 A. Yes, our regs use the term installation.
 15 Q. So installation would include all emission
 16 units at a given facility?
 17 A. That's correct.
 18 Q. And then the second step in the applicability
 19 determination flowchart is to calculate the potential
 20 emissions of the project; is that correct?
 21 A. Yes.
 22 Q. And as referred to I think in this document is
 23 capital P small c?
 24 A. Uh-huh.
 25 COURT REPORTER: Is that a yes?

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1 THE WITNESS: Yes.
 2 BY MR. BONEBRAKE:
 3 Q. If you could turn with me to page 15 of the
 4 manual. And does section B on page 15 provide guidance as to
 5 how to determine the potential emissions of a project?
 6 MR. HANSON: Objection, document speaks for
 7 itself.
 8 THE WITNESS: Yes, this section is entitled
 9 potential of new construction or modification and gives a
 10 description of potential emissions.
 11 BY MR. BONEBRAKE:
 12 Q. And how does MDNR determine the potential
 13 emissions of a project?
 14 A. Well, the application would detail the
 15 emission units of that project and the design rates of each
 16 emission unit, and we would calculate the potential emissions
 17 based on what we are given as the emission units, the
 18 equipment that they are proposing to install. We would use
 19 emission factors that either the source provided or the best
 20 emission factors available to us to calculate the emissions,
 21 and then the potential would be the 8,760 hours of operation
 22 per year.
 23 Q. So when MDNR is using the term "potential
 24 emissions of a project," is it using that term as shorthand
 25 for the concept of whether or not there are changes in the

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1 potential emissions of the emission unit as a result of the
 2 project?
 3 A. I'm not understanding the question. I -- we
 4 would -- the potential emissions of the project presented to
 5 us in an application, we would look at the equipment that
 6 they are either modifying or installing --
 7 Q. Uh-huh.
 8 A. -- calculate the potential emissions of those
 9 pieces of equipment.
 10 Q. Calculate the potential emissions of those
 11 pieces of equipment?
 12 A. Yes.
 13 Q. Okay. So if the project presented to MDNR did
 14 not impact the potential emissions of an existing emission
 15 unit, would there be zero potential emissions from the
 16 project?
 17 MR. HANSON: Objection, lack of foundation,
 18 vague and ambiguous.
 19 THE WITNESS: I would have to ask for a --
 20 could you reclarify that?
 21 BY MR. BONEBRAKE:
 22 Q. Sure. Let me -- let me take it in pieces.
 23 A. Okay.
 24 Q. We have an existing emission unit. There is a
 25 project to perform a physical change at that existing

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1 emission unit, okay?
 2 A. Uh-huh.
 3 Q. That project will not increase the potential
 4 emissions of the emission unit in which it occurs, okay?
 5 A. Okay.
 6 Q. In that scenario, is the potential emissions
 7 of the project zero?
 8 MR. HANSON: Same objection.
 9 THE WITNESS: I wouldn't have enough
 10 information to answer that conclusively because the
 11 project -- it would depend if that project is just effecting
 12 that emission unit or if that project is effecting the entire
 13 installation. So I would need to look at the application as
 14 a whole to see whether those potential emissions were coming
 15 from and what units that effect it.
 16 BY MR. BONEBRAKE:
 17 Q. Okay. So let's assume that there is no impact
 18 to other emission units with respect to that physical change
 19 at one emission unit.
 20 A. Okay.
 21 Q. In that scenario, would the potential
 22 emissions of the project be zero?
 23 MR. HANSON: Objection, lack of foundation,
 24 calls for hypothetical.
 25 THE WITNESS: Again, I -- I don't think I have

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1 enough specifics to answer that, so.
 2 BY MR. BONEBRAKE:
 3 Q. What else -- what else would you need?
 4 A. Well, could you repeat the example? I'm
 5 not --
 6 Q. Okay. So -- I know these are --
 7 A. It's very hard without an application in front
 8 of me to step through the process, and also I haven't written
 9 a permit in 12 years, so.
 10 Q. Right. And again, I'm asking for MDNR's
 11 position --
 12 A. Right, right.
 13 Q. -- because this is a 30(b)(6).
 14 A. Yes, I know.
 15 Q. We have an existing emission unit at a major
 16 source.
 17 A. Okay.
 18 Q. The source proposes a physical change at the
 19 existing emission unit, okay?
 20 A. Okay.
 21 Q. That physical change would not change the
 22 potential to emit of the emission unit.
 23 A. Okay.
 24 Q. Would the potential emissions of the project
 25 as MDNR uses that term be zero?

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1 MR. HANSON: Objection, vague and ambiguous,
 2 lack of foundation, calls for hypothetical.
 3 THE WITNESS: The potential emissions of that
 4 unit appear to be zero and if that is the only change that's
 5 occurring, most likely the potential emissions at that
 6 project would be zero.
 7 BY MR. BONEBRAKE:
 8 Q. Okay. And was that the applicability process
 9 that MDNR was using for construction permitting applicability
 10 assessments for both major and minor sources, and again
 11 focused on the period from 1996 up until the time that any
 12 reform rule revisions were implemented in the state rules?
 13 A. Yes.
 14 Q. Question for you a little further down on page
 15 15, it's the third full paragraph. It starts with, at this
 16 point.
 17 A. Uh-huh.
 18 Q. And the second sentence reads, potential of
 19 construction should only include new equipment or additional
 20 capacity. Do you see that?
 21 A. Yes.
 22 Q. And so the potential emissions of construction
 23 with respect to existing equipment would only change if there
 24 was an increase in capacity of that existing equipment;
 25 right?

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1 MR. HANSON: Objection, lack of foundation,
 2 document call – speaks for itself.
 3 THE WITNESS: That is the definition of
 4 potential to construction in this document, yes.
 5 BY MR. BONEBRAKE:
 6 Q. Okay. If we go back to the flowchart on page
 7 21 – excuse me, on page 20. We were just talking about the
 8 step involved in the applicability process of assessing the
 9 potential emissions of the project; right?
 10 A. Yes.
 11 Q. Now, if there is an expected increase in
 12 potential emissions of the project, then would the next step
 13 in the applicability process be to look at whether or not
 14 there would be a net emissions change as well related to that
 15 project?
 16 MR. HANSON: Objection, document speaks for
 17 itself.
 18 THE WITNESS: Yes. You would look at – if
 19 this is for an existing facility, yes, you would look at –
 20 you could choose to look at the net emissions change, yes.
 21 BY MR. BONEBRAKE:
 22 Q. When you say "could choose," what do you mean
 23 by that?
 24 A. Well, the simplest matter is to look at the
 25 potential emissions of the project and if that by itself does

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1 not trigger any permitting action, then you don't need to do
 2 the net emissions change. It's a simplified –
 3 Q. I see.
 4 A. – calculation.
 5 Q. So just to clarify, that if you have no
 6 potential project emission increase, you never need to get to
 7 the step two netting question; is that correct?
 8 A. Or if the potential emissions of the project
 9 are below a threshold where it would not be beneficial to use
 10 a net emissions increase calculation, yes.
 11 Q. Okay. And then under this 2000 manual, if you
 12 have an expected increase in potential emissions of the
 13 project and an expected net emission increase, then would you
 14 look to confirm that you have a physical or operational
 15 change that's not otherwise excluded? Would that be the next
 16 step in the process?
 17 A. Could – could you restate? So you've
 18 calculated potential emissions and then what's your question,
 19 the next step?
 20 Q. Yeah, let's assume – let's step back a
 21 second. In order for there to be a modification, we need to
 22 have a physical or operational change that causes an emission
 23 increase; correct?
 24 A. Right.
 25 Q. So if – if under this manual we have an

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1 emission increase of the project –
 2 A. Yes.
 3 Q. – and a net emission increase –
 4 A. Yes.
 5 Q. – then would you also need to look to see if
 6 you have a physical or operational change that's not
 7 otherwise excluded from permitting requirements under the
 8 rule?
 9 MR. HANSON: Objection, lack of foundation,
 10 compound.
 11 THE WITNESS: That would be part of the
 12 review. I don't know if the next step, sometimes that's done
 13 before you get to the potential emission calculation, so.
 14 BY MR. BONEBRAKE:
 15 Q. Fair enough.
 16 A. Okay.
 17 Q. But in any event, that's a step that needs to
 18 occur?
 19 A. Yes, you can review that, yes.
 20 Q. And by the way, while you were performing
 21 duties either as a permit engineer or a manager, do you
 22 recall ever relying upon the manual that is Exhibit 5 or any
 23 version thereof?
 24 A. Not extensively. As I mentioned earlier, this
 25 was always considered a work in progress. I just noticed

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1 it's dated 2000 and due to staffing workload, we didn't --
 2 once this was drafted, we didn't have a lot of time and --
 3 available time to update it and modify it. I would say I
 4 used the flowchart in its form multiple times in addition for
 5 drafting permits and reviewing permits, but also to explain
 6 our permitting process to outside entities. Other than that,
 7 the document was available for review and guidance but it was
 8 not heavily relied upon until its recent configuration, which
 9 is what is on our Web site to date.

10 Q. Now, when you say you used the flowchart to
 11 explain the process to outside entities, were any of those
 12 outside -- was US EPA among any of those outside entities?

13 A. I don't recall any specific -- I mean, this is
 14 explaining the Missouri minor source permitting more so than
 15 the PSD, but EPA would have been privy to this document, so
 16 conversations on it may have come up.

17 Q. Well, with respect to that -- that last
 18 answer, as we just were looking at the definition of
 19 modification as it's used in the applicability section --

20 A. Yes.

21 Q. -- and I think you've indicated before, did
 22 you not, that MDNR was using the concept of change in
 23 potential emissions to determine applicability of all
 24 construction permitting requirements, was that not correct?
 25 MR. HANSON: Objection.

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1 THE WITNESS: Yes.
 2 MR. HANSON: Vague and ambiguous.
 3 BY MR. BONEBRAKE:
 4 Q. Yes? On page 21 in section 4, that section
 5 provides in the first sentence, once the applicability has
 6 been determined, permit reviewers will refer to the
 7 individual sections of the rule to find -- rules to find out
 8 what is required. The main difference is in the sections 5,
 9 6, 7, and 8 involve the extent of air quality impact analysis
 10 in the pipe, if any, of control evaluation. Do you see that?
 11 A. Yes.
 12 Q. So am I correct that the process that MDNR has
 13 employed for applicability assessments and then related
 14 permitting is, step one, you look at the definition of
 15 modification and determine if there's a physical or
 16 operational change that would cause an increase in potential
 17 emissions and net emissions, and then step two, if the answer
 18 is yes, you look to sections 5, 6, 7, and 8 of the
 19 construction permitting rules to determine what the
 20 permitting requirements would be for the required permit; is
 21 that correct?
 22 MR. HANSON: Objection, compound.
 23 THE WITNESS: Yes. Once you have the
 24 potential emissions, you would review our rules to determine
 25 what type of permit to draft.

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1 BY MR. BONEBRAKE:
 2 Q. And what type of permit is addressed in
 3 section 5?
 4 A. Section 5 refers to section 5 of our
 5 construction permit rule 6.060, which is our De Minimus
 6 permit review.
 7 Q. And section 6?
 8 A. Section 6 refers to our minor permits.
 9 Q. And sections 7 and 8?
 10 A. Seven and 8 are both the major permits. Eight
 11 would be the PSD permit rules, seven would be the
 12 non-attainment NSR rules.
 13 Q. And this document is directing us, then, to
 14 look at those sections to determine what should be in those
 15 respective types of permits; correct?
 16 A. Yes.
 17 (Exhibit No. 7 was marked for identification.)
 18 BY MR. BONEBRAKE:
 19 Q. Okay. We're showing to the witness has been
 20 marked as Deposition Exhibit No. 7 -- 7 for identification.
 21 A. Okay.
 22 Q. Can you take a moment to take a look at that
 23 document, please?
 24 MR. BONEBRAKE: And I'll note for the record
 25 that this is a multi-page exhibit bearing Bates-stamp

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1 Nos. AM-00025867-MDNR through AM-00025884-MDNR. Make that
 2 885-MDNR.
 3 BY MR. BONEBRAKE:
 4 Q. Have you had a chance to take a look at the
 5 exhibit?
 6 A. Yes, briefly.
 7 Q. And is this exhibit comprised of a no permit
 8 required letter dated July 21, 2006 from MDNR to Associated
 9 Electric Cooperative, Inc. and related documents?
 10 A. That's correct.
 11 Q. And I wanted to use this exhibit to talk a
 12 little bit about your file system to make sure that we
 13 understand the documents that have been produced to us by
 14 MDNR.
 15 A. Okay.
 16 Q. So if you bear with me through some
 17 administrative questions here.
 18 A. Yes.
 19 Q. The first page of this exhibit is a document
 20 entitled permit action management system or parens PAMS, end
 21 parens. What is this document? What's its purpose?
 22 A. We have had some type of permit action
 23 management system, the most current is PAMS. There's been
 24 different iterations of that database since the mid-'80s, I
 25 believe. It is a database that we track every project

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1 received. We assign -- as soon as a project comes in,
 2 whether it's a permit application or a letter from a
 3 facility, anything that requires our response from the permit
 4 section in this case. It gets logged -- it is logged in as
 5 a -- with a project number. In this case, the review number
 6 is our project number. It's also logged in by facility ID.
 7 If we already have that facility in our system, if it's a
 8 brand new facility, we assign it a facility ID so it has the
 9 project number, facility ID, name of the facility, a -- as
 10 best as we can determine when the project comes in, it's
 11 logged in as what type of project. In this case, the permit
 12 type is listed applicability determination request. And then
 13 this is a tracking sheet that the permit writer staff member
 14 assigned in this category, the DNR staff assigned was Lina
 15 Kline, updates this and what stage the project is. And this
 16 is our -- our internal review steps that are listed here.
 17 Q. Okay. Thank you. And in this particular
 18 case, the project number was 2006-05-022, correct?
 19 A. That's correct.
 20 Q. And is the first number, the 2006, is that the
 21 year of the inquiry that lead to the applicability
 22 determination?
 23 A. Yes. Since approximately 1998, our project
 24 numbers identify the year it was received, the month it was
 25 received, and then the number of project received in that

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1 month. So for example this 2006-05-022 was the 22nd project
 2 we received in May, 2006.
 3 Q. And -- and does project refer only to
 4 applicability determination inquiries or is it broader than
 5 that?
 6 A. No, it is every project we receive into the
 7 permit section. As I mentioned, any project that requires a
 8 response: Permit applications, letters requesting whether we
 9 concur with a permit determination request. At one time, we
 10 also received sales tax exemption requests, so any project
 11 that we needed to take action on would be logged in as a
 12 project.
 13 Q. And then the next page of the exhibit and the
 14 page thereafter, is that a copy of an MDNR letter dated
 15 July 21, 2006?
 16 A. That's correct.
 17 Q. And is that letter signed by you?
 18 A. Yes.
 19 Q. And you recognize your signature there?
 20 A. Yes.
 21 Q. And then the remainder of the exhibit contains
 22 e-mails as well as the requests for the applicability
 23 determination from AECl; is that correct?
 24 A. Yes, that's correct.
 25 Q. So in MDNR's files, would all of the documents

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1 that comprise this exhibit have been kept in an individual
 2 file?
 3 A. Yes. This appears to be the project file for
 4 that project. There's a fee work sheet as well as the
 5 original letter and any correspondence.
 6 Q. Okay. So MDNR, then, would keep a file for
 7 each project, whether it be an applicability determination
 8 inquiry or an issued permit?
 9 A. That's correct.
 10 Q. Okay. Now, what was your involvement -- we
 11 talked about the fact that you signed this letter. What was
 12 your involvement with the applicability determination
 13 reflected in MDNR's letter?
 14 A. Most permit determinations letters that I
 15 signed, my involvement would not be until the very end when
 16 the letter was presented to me with a staff recommendation,
 17 which is the letter. So the staff reviewed the document,
 18 submitted it to me with a draft letter with their
 19 recommendation that no permit is required. And then I would
 20 sign the letter based on their recommendation.
 21 Q. Okay. And Lina Kline is indicated as the
 22 contact person.
 23 A. Yes.
 24 Q. So what is the significance of her listing
 25 there?

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1 A. That indicates she was the project reviewer on
 2 this project, and that is also affirmed by the PAMS sheet on
 3 the front, the staff member assigned was Lina Kline.
 4 Q. And would you anticipate from the fact that
 5 she was listed as contact person, that she was the drafter of
 6 the letter?
 7 A. Yes. Also it indicates under the initials of
 8 my initials KLM, the first two initials is the drafter of the
 9 letter. In the occasion that the person's name is not here,
 10 those initials would indicate who drafted the letter, LK.
 11 Q. Okay. And you're referring to the initials on
 12 the document -- the page with the Bates-stamp No. AM00025869;
 13 is that correct?
 14 A. That's correct.
 15 Q. And you were permit section chief at the time
 16 you signed this letter?
 17 A. Yes.
 18 Q. And you were authorized at that point to issue
 19 applicability determinations for MDNR?
 20 A. Yes.
 21 Q. And is Lina Kline still with MDNR?
 22 A. No, she is not.
 23 Q. And when did she leave MDNR?
 24 A. I don't have the exact date, but I think she's
 25 been gone at least five years.

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1 Q. And do you know where she works currently?
 2 A. She currently works for Fred Weber in
 3 St. Louis County.
 4 Q. Is that Inc. or LLC?
 5 A. I think it's just Fred Weber. It's a concrete
 6 and asphalt plant company.
 7 Q. Oh, I see. I was thinking consultant.
 8 A. Yeah, no, it is a facility.
 9 Q. Okay.
 10 A. So.
 11 Q. So it's an actual production facility of some
 12 kind?
 13 A. Yes, yes.
 14 Q. Now with respect to the applicability
 15 determination process, I think we talked a little bit about
 16 that and the fact that MDNR generates a file then for
 17 projects as -- as they come in. Is it true that in Missouri,
 18 a source can ask for an applicability determination for
 19 construction permitting but is not required to do so?
 20 A. That's correct.
 21 Q. And that would be true for both PSD and other
 22 forms of construction permits; is that correct?
 23 A. Yes, that's correct.
 24 Q. And turning to the details of this particular
 25 letter and looking at page AM-00025868-MDNR, MDNR's

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1 determination as set forth in this letter related to
 2 construction permit applicability for the replacement of
 3 cyclone burners for two units at the Thomas Hill plant
 4 operated by AECl; is that correct?
 5 A. Yes.
 6 Q. Was the Thomas Hill plant a major source at
 7 the time of this determination?
 8 A. Yes.
 9 Q. And do you know why AECl was replacing the
 10 cyclone burners of those two units?
 11 MR. HANSON: Objection, lack of foundation.
 12 THE WITNESS: Other than what is in this
 13 letter and the e-mails, no.
 14 BY MR. BONEBRAKE:
 15 Q. Okay. And with respect to this letter, do we
 16 see a -- a description of at least some of the reason why in
 17 the second paragraph?
 18 MR. HANSON: Objection, document speaks for
 19 itself.
 20 THE WITNESS: Yes.
 21 BY MR. BONEBRAKE:
 22 Q. And what's your understanding based upon that
 23 paragraph of why AECl was replacing the cyclones?
 24 A. The letter states that they were replacing
 25 these because co-ash and slag have accumulated within the

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1 metal casing that surrounds the inlet header and barrel
 2 tubes, and there's further description that it created a
 3 corrosive environment on the barrel tubes.
 4 Q. And so wall thickness of the tubes had been
 5 decreased to unacceptable levels; is that correct?
 6 MR. HANSON: Objection, the document speaks
 7 for itself.
 8 THE WITNESS: I don't see the word
 9 "unacceptable," but it does talk about the wall thickness and
 10 the -- the current thickness and the original thickness and
 11 then they are replacing the tubes and the shut-off and
 12 control dampers, yes.
 13 BY MR. BONEBRAKE:
 14 Q. Now, was this one of the applicability
 15 determinations, you know, for which you did some related
 16 review to prepare for the deposition?
 17 A. I do believe this is one of the documents if
 18 it was on the list of the subpoena, yes, I would have read
 19 the letter.
 20 Q. And -- and -- and do you recall either from
 21 looking at the letter or your related review whether or not
 22 the causes, the reasons why the plant was wanting to change
 23 the cyclone burners was to reduce outages or derates caused
 24 by the tubes?
 25 MR. HANSON: Objection, the document speaks

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1 for itself, vague and ambiguous.
 2 THE WITNESS: I didn't get into that much
 3 detail, and down in the weeds, if you will, but it just
 4 appears based on the letter that there was some operational
 5 issues that they were trying to take care of by replacing
 6 these tubes.
 7 BY MR. BONEBRAKE:
 8 Q. Do you know if MDNR ever inquired of AECl if
 9 the plant had been experiencing outages or derates as a
 10 result of the cyclone tubes that the plant wanted to replace?
 11 MR. HANSON: Objection, the document refers to
 12 cyclone burners.
 13 THE WITNESS: That would be a -- since this
 14 appears to be the entire project file, that would be in the
 15 documents here. There is an e-mail where Lina's asking for
 16 the capital cost. What was your question, if they were
 17 doing?
 18 BY MR. BONEBRAKE:
 19 Q. Whether MDNR ever inquired of AECl about
 20 whether the cyclone burners to be replaced had caused outages
 21 or derates at Units 1 or 2 at the Thompson Hill plant.
 22 A. In glancing through, the e-mail correspondence
 23 between Lina Kline and Todd Tolbert, I don't see offhand the
 24 conversation on outages.
 25 Q. And back -- back in 2006 when -- when you

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1 signed this letter, would that have been an inquiry you would
 2 have expected MDNR to make of a source proposing this kind of
 3 project?
 4 A. Not necessarily. If the project engineer did
 5 not find that relevant to the determination, no, she would
 6 not have asked that.
 7 Q. And there's nothing in the file, is there,
 8 that indicates that the project engineer thought that was
 9 relevant?
 10 A. I'm not seeing that.
 11 MR. HANSON: Objection, the document speaks
 12 for itself.
 13 BY MR. BONEBRAKE:
 14 Q. About halfway down the first page of your
 15 letter, there's a -- there's a letter to reconstruction. Do
 16 you see that?
 17 A. Yes.
 18 Q. Is that an NSPS concept?
 19 A. Yes.
 20 Q. That's capital N-S-P-S. Is the concept of
 21 reconstruction relevant for construction permitting
 22 applicability assessments?
 23 MR. HANSON: Objection, vague and ambiguous.
 24 Also vague as to time.
 25 THE WITNESS: Well, it was part of the

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1 determination in this letter that it was not reconstruction
 2 and therefore no construction permit is required. So it is
 3 relevant in this situation.
 4 BY MR. BONEBRAKE:
 5 Q. Do you know if -- if the NSPS program has any
 6 permitting requirement?
 7 A. The NSPS --
 8 MR. HANSON: Objection, outside the scope.
 9 THE WITNESS: The NSPS program, if you will,
 10 is just different sets of rules and standards that sources
 11 have to comply with. It has a role in permitting, but your
 12 question is does it require a permit?
 13 BY MR. BONEBRAKE:
 14 Q. Correct, when triggered.
 15 MR. HANSON: Same objection.
 16 THE WITNESS: Not necessarily. It would be
 17 case by case. The new source -- the new source performance
 18 standard is not going to trigger a permit by itself, so.
 19 BY MR. BONEBRAKE:
 20 Q. Okay. All right. And then the next paragraph
 21 after the quote of reconstruction, I'd like to talk about
 22 that paragraph --
 23 A. Okay.
 24 Q. -- a little bit. The second sentence in that
 25 paragraph reads, since there will be no increase in the

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1 potential to emit, according to the applicant, the change
 2 cannot be considered a modification per Missouri state rule.
 3 Do you see that?
 4 A. Yes.
 5 Q. And the Missouri state rule that you are
 6 referencing in your letter here is 10 CSR 10-6.060; is that
 7 correct? And you can see --
 8 A. The particular state rule --
 9 Q. Just point you to the first paragraph as well,
 10 if that's helpful for you.
 11 A. Right, the -- I mean, the answer's yes, but
 12 because the definition of modification is technically in
 13 6.020, but yes, the 6.060 is the permit rule.
 14 Q. So in your letter, then, you were -- you were
 15 finding, you were making a determination -- strike that.
 16 In this MDNR letter signed by you, MDNR was
 17 making a determination that the replacement of cyclone
 18 burners would not be a modification under Missouri's
 19 construction permitting rules, correct?
 20 A. That's correct.
 21 Q. And that would mean there was no permit --
 22 construction permit of any kind required for this project,
 23 including no PSD permit; is that correct?
 24 A. That is the determination made at this time.
 25 Q. Okay. And the sentence that I just read

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1 refers to the fact that there will be no increase in the
 2 potential to emit. Do you see that?
 3 A. Yes.
 4 Q. And is it correct, then, that MDNR was looking
 5 for applicability review purposes at whether the proposed
 6 cyclone burner project would change the potential to emit of
 7 the emission units effected by the cyclone burner project?
 8 A. Yes.
 9 Q. And in this case, MDNR found that the proposed
 10 replacement of cyclone burners would not change the potential
 11 to emit of Units 1 and 2 at the Thompson -- at the Thomas
 12 Hill plant; is that correct?
 13 A. There was no increase in the potential
 14 emissions, that is correct.
 15 Q. And as we discussed earlier in connection with
 16 the -- the rule, when there is no increase in the potential
 17 to emit of the emission unit, there is no modification under
 18 Missouri's construction permitting rules; is that correct?
 19 A. Yes.
 20 Q. And do you know in reference to the -- the
 21 phrase "increase in the potential to emit," whether MDNR was
 22 looking at the annual potential to emit of Units 1 and 2 at
 23 the Thomas Hill plant?
 24 MR. HANSON: Objection, vague and ambiguous.
 25 THE WITNESS: It looks like it was the -- yes,

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1 the potential emissions of the -- it would be annual, as you
 2 state.
 3 BY MR. BONEBRAKE:
 4 Q. And it would be annual for what reason?
 5 A. Well, it's the potential emissions as defined
 6 as 8,760 hours, so it would be annual.
 7 Q. So as of 2006, then, MDNR is determining that
 8 a change in an emission unit does not require a construction
 9 permit of any kind unless that change increases the potential
 10 to emit of the emission unit; is that correct?
 11 MR. HANSON: Objection, lack of foundation,
 12 vague as to time.
 13 THE WITNESS: The determination was made in
 14 this case that -- that no permit was required based on no
 15 increase in emissions, yes.
 16 BY MR. BONEBRAKE:
 17 Q. And the no increase in emissions was no
 18 increase in potential emissions of the emission units; right?
 19 A. Yes.
 20 Q. And do you know based upon your review how
 21 MDNR determined that there would be no increase in the
 22 potential emissions of the emission units?
 23 A. Based on the data in this project file, the
 24 project reviewer, in this case Lina Kline, obtained that
 25 information through the letter and through subsequent e-mails

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1 with the facility.
 2 Q. But would it be true based upon your
 3 experience that the replacement of tubes within a boiler
 4 would typically change the maximum emission capacity of a
 5 boiler?
 6 MR. HANSON: Objection, calls for speculation,
 7 lack of foundation, also hypothetical.
 8 THE WITNESS: In this case, that was the
 9 determination. As I mentioned earlier, everything we do is
 10 very case by case, so making that broad statement is not
 11 something I can do.
 12 BY MR. BONEBRAKE:
 13 Q. By the way, do you know if cyclones in boilers
 14 are comprised of tubes?
 15 A. No, I do not.
 16 Q. Okay.
 17 (Exhibit No. 8 was marked for identification.)
 18 BY MR. BONEBRAKE:
 19 Q. Okay. We're going to present to you a
 20 document that's been marked as Deposition Exhibit No. 8.
 21 It's a three-page document bearing Bates-stamp Nos.
 22 AM-00631952-MDNR through 1954. And if you could take a look
 23 at that, please.
 24 A. All right.
 25 Q. Have you had a chance to take a look?

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1 A. Yes, I do.
 2 Q. And what is this document?
 3 A. This is a general overview of air permitting
 4 for the air pollution control program.
 5 Q. And were you involved in the preparation of
 6 this document?
 7 A. I was.
 8 Q. And what was that involvement?
 9 A. I believe my recollection is I put this
 10 together with the assistance of the other staff members
 11 listed on here, Kendall Hale and Mike Stansfield, to give a
 12 mile-high view of the air permitting in Missouri.
 13 Q. And was this document intended to be provided
 14 to sources in Missouri to provide guidance regarding
 15 construction permitting?
 16 A. It was one piece of guidance. I think the
 17 reason I put it together was for internal staff. My
 18 recollection is when we switched program directors, this was
 19 something I utilized to explain our permitting process to our
 20 new program director.
 21 Q. Was this -- was this document posted on MDNR's
 22 Web site at any time?
 23 A. No, I don't believe so. It may have been
 24 included in our air advisory form Web site, but I would have
 25 to check that history to know.

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1 Q. But it was provided to permit engineers as
 2 guidance to construction permitting requirements?
 3 A. It was utilized more for management. It was
 4 available to permit staff because it was on our network, but
 5 it was more of a -- attempt to simplify our permit process
 6 for my upper management.
 7 Q. Okay. At the top of the second page, it's the
 8 second bullet from the top. And the first sentence reads,
 9 potential emissions of proposed project determine type of
 10 construction permit needed. And the next sentence reads,
 11 potential emissions are calculated based on maximum design
 12 capacity of the installation assuming continuous year-round
 13 operation. Can you describe for us whether -- whether this
 14 is a description -- well, strike that.
 15 Is this a -- a description of the way to
 16 determine whether or not a change at an existing source would
 17 be a modification?
 18 A. Yes, this is -- again, this is a very
 19 simplified approach to construction permits and this is
 20 describing potential emissions and that they are calculated
 21 8,760 hours per year maximum design capacity. That is what
 22 that bullet is for.
 23 Q. Okay. So consistent with our -- with our
 24 earlier discussion when MDNR was assessing construction
 25 permit applicability and looking at the issue of change in

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1 potential emissions, it was looking at whether the potential
 2 to emit on an annual basis would be impacted by a project; is
 3 that correct?
 4 MR. HANSON: Objection, lack of foundation,
 5 calls for speculation, calls for hypothetical.
 6 THE WITNESS: Again, the purpose of this
 7 document was trying to boil down our somewhat complicated
 8 flowchart of permitting into a couple pages to explain to
 9 management and others who were not at all familiar with
 10 permits. So this bullet point in question on potential
 11 emissions is just to describe the concept of potential
 12 emissions, which for people who don't deal with air
 13 permitting, it's very difficult to understand potential
 14 emissions unless you explain it as maximum design 8,760 hours
 15 per year. So that's the purpose of this bullet point.
 16 BY MR. BONEBRAKE:
 17 Q. Okay. So this -- this is an abbreviated
 18 description on applicability assessment that's more fully
 19 described in the manual we were talking about earlier?
 20 A. Yes, the manual would probably go into more
 21 detail.
 22 Q. Okay.
 23 THE WITNESS: Can I have a quick break to get
 24 some more water?
 25 MR. BONEBRAKE: Sure, let's go off the record.

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1 VIDEOGRAPHER: Off the record at 11:09.
 2 (A break was held.)
 3 (Exhibit No. 9 was marked for identification.)
 4 VIDEOGRAPHER: We are back on the record after
 5 a short break. It's 11:29 a.m.
 6 BY MR. BONEBRAKE:
 7 Q. I'm going to present to you our next exhibit.
 8 This is Exhibit No. 9 bearing Bates-stamp
 9 No. AM-02317760-MDNR through 797-MDNR. Hand that to you.
 10 Will you take a look at that, please, for me?
 11 A. Okay.
 12 Q. Have you had a chance to take look at that
 13 exhibit?
 14 A. Yes.
 15 Q. And did you have a chance to review any of
 16 these materials that are included in this exhibit for
 17 preparation for your deposition today?
 18 A. I have seen the last few pages, the letter to
 19 Randy Raymond.
 20 Q. From the Missouri Public Service?
 21 A. Yes.
 22 Q. Any other -- any of the other documents in
 23 this exhibit?
 24 A. No, I have not been able to view those. I did
 25 not find those.

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1 Q. Okay. These were produced to us in serial
 2 Bates-stamp number -- with serial Bates stamp numbers and
 3 they all appear to us to be related to the same project
 4 review by MDNR. Does that appear to be the case for you
 5 based upon your review?
 6 A. Yes.
 7 Q. And do all the documents that comprise this
 8 exhibit relate to a no permit required determination by MDNR
 9 related to a project at the Sibley plant?
 10 A. All these documents are related to this
 11 project number 0840-003-006, which based on the permits
 12 detail report, this was the pre-PAMS database, it says no
 13 permit required. There's no letter or determination from our
 14 office. There are just documents from Missouri Public
 15 Service, a testimony, and then the letter. And that is what
 16 I looked briefly for to see our letter in response, but I do
 17 not see that here. And I have not reviewed it either.
 18 Q. You mentioned that the first page of this
 19 exhibit, the permits detail report, that that was a
 20 predecessor to the cover sheet that we were talking about
 21 earlier with respect to the 2006 applicability determination?
 22 A. Yes. This is a permit database tracking
 23 sheet, an earlier database to the one we use now, similar
 24 information.
 25 Q. And when was that earlier database in place?

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1 A. It -- I'm not sure when it started. It was in
 2 place -- it was called PATS, permit area tracking system,
 3 when I started in 1999. We switched to the PAMS, the version
 4 that we reviewed earlier, in early 2000s. I don't know how
 5 long this database was in place.
 6 Q. And the review number here, starting with 084
 7 on the top of the first page, is that correspond -- did that
 8 correspond to the later project number?
 9 A. That is -- yes, that was the project number at
 10 the time, which we then replaced with the more date-oriented
 11 project number.
 12 Q. And if you turn with me toward the back of the
 13 document, it's the Bates-stamp No. 02317793.
 14 A. Okay.
 15 Q. And this is the first page of the Missouri
 16 Public Service letter to Randy Raymond. Do you see that?
 17 A. Yes.
 18 Q. At the upper right, there is a -- what looks
 19 to be 1990 February 21 air pollution control stamp.
 20 A. Yes.
 21 Q. Does that indicate to you that the letter was
 22 received by MDNR on that date?
 23 A. Yes.
 24 Q. And above that, there's a handwriting that
 25 appears to be the number 0840-003-006. Do you see that?

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1 A. Yes.

2 Q. And does that correspond to the review number

3 listed on the permits detail report on the first page of this

4 exhibit?

5 A. Yes.

6 Q. And does that indicate to you that the project

7 described in the Missouri Public Service letter of

8 February 16, 1990, to Randy Raymond was the project addressed

9 by the permit detail report, which is the first page of this

10 exhibit?

11 A. Yes.

12 Q. And as you noted, MDNR made a no permit

13 required determination with respect to the activities

14 described in Missouri Public Service Company's February 16th,

15 1990, letter; is that correct?

16 A. The only thing I can lead to on that is that

17 the detail report does say it's closed out as a no permit

18 required project. There's not a letter explaining why no

19 permit was required, but I would rely on that sentence that

20 the status is no permit required. But there's no internal

21 review documents.

22 Q. Okay. But if you were -- if MDNR wanted to

23 determine the result of any review of the Missouri Public

24 Service Company's activities for permit applicability, the

25 permit detail report would be a place that MDNR would go to

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1 determine the status of the review?

2 A. The way I would interpret this, because of the

3 age of the project, is we didn't do any permit action and it

4 was logged in as no permit required because we did not take

5 any action. So because there's no determination, that was

6 most likely a default in our system that no permit was issued

7 or required, so.

8 Q. But to your knowledge, no permit was required

9 for this set of activities described in the Missouri Public

10 Service Company letter; correct?

11 A. That appears to be the action taken, yes.

12 Q. Okay. And you said you had reviewed the

13 Missouri Public Service Company letter prior to your

14 deposition today?

15 A. Yes, I did.

16 Q. And is it true that in that letter, Missouri

17 Public Service Company was describing for Randy Raymond a

18 series of activities that were proposed that would cost

19 approximately 70 million dollars?

20 MR. HANSON: Objection, lack of foundation,

21 document speaks for itself.

22 THE WITNESS: There is a letter detailing

23 different projects. I don't see the total.

24 BY MR. BONEBRAKE:

25 Q. If you turn with me to 796.

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1 A. It says the total cost of this these projects

2 is approximately 70 million dollars, yes.

3 Q. And was Randy Raymond the deputy director of

4 MDNR as of February 16th, 1990?

5 A. That is the title listed on the document. To

6 my knowledge, he was the permit section chief as well.

7 Q. And is Mr. Raymond still with MDNR?

8 A. No, he is retired.

9 Q. On the first page, the permits detail report,

10 there is an identification of a DNR staff.

11 A. Yes.

12 Q. Is that Karen Curtit, C-u-r-t-i-t?

13 A. Yes.

14 Q. Does that indicate that she was involved in

15 the decision?

16 A. Yeah, she was the staff member assigned to

17 this project.

18 Q. So she was a project engineer?

19 A. Yes.

20 Q. Is she with MDNR at this point in time?

21 A. No, she is not.

22 Q. Do you know if she's employed elsewhere?

23 A. She works for Shell Engineering in Columbia,

24 Missouri.

25 Q. So I take it based upon your review of the

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1 available materials, you do not know why MDNR determined that

2 no permit was required in this particular instance?

3 A. No, there is no determination here. There is

4 just the project closed out with that statement.

5 (Exhibit No. 10 was marked for

6 identification.)

7 BY MR. BONEBRAKE:

8 Q. We're presenting to you an exhibit that's been

9 marked No. 10 for identification. Again, this is a

10 multi-page exhibit Bates-stamped No. AM00024786-MDNR through

11 797. See if you could take a look at that, please, for me.

12 A. Okay.

13 Q. One question related to the last exhibit

14 before we -- before we turn to this one, with respect to the

15 Sibley project, I think you mentioned that the exhibit did

16 not include that a actual formal applicability determination

17 by MDNR, instead we had a record, a summary record so

18 indicating.

19 Would it be in all instances that MDNR would

20 issue a formal applicability determination or are there

21 instances in which the record would reflect no permit

22 required without a formal letter from MDNR?

23 A. In recent years, there would be a formal

24 letter from us to the source. I can't speak for every

25 project prior, especially one as old as this. It is our

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1 preference to have a complete document and explanation on if
 2 we concurred or not rather than just one step being listed in
 3 our permit database because anyone could click this step in
 4 the database and say no permit required just to close out the
 5 project and take it off our active project list.
 6 So the older projects are -- it's very
 7 difficult when there's not something from staff concurring
 8 with what the source says. In recent years, we would have a
 9 response. For -- the main reason is the source wants that
 10 response in writing from us. So there would be very limited
 11 times when we would not respond in writing, especially in
 12 recent years. I'd say in the last 15 years.
 13 Q. Okay. So like I said, that suggests to me
 14 that there might have been a formal letter or not, just not
 15 clear at this point in time?
 16 A. Since it was 1990, I -- I mean, if there was a
 17 formal letter, obviously not a lot was electronic at that
 18 time, so paper copy could have existed at one time, but
 19 it's -- it's hard to say because there's not anything in the
 20 file at this point.
 21 Q. By the way, I think you earlier mentioned that
 22 a violation notice had been issued to -- strike that.
 23 All right. I'd like to turn to Exhibit
 24 No. 10. Does this exhibit appear to relate to an
 25 applicability determination issued by MDNR via a May 15,

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1 2004, letter to Associated Electric Cooperative, Inc.?
 2 A. Yes.
 3 Q. And did you review the documents that comprise
 4 this exhibit in preparation for your deposition today?
 5 A. Yes, I did.
 6 Q. And on the third page of this -- this exhibit,
 7 which is the page containing the signature line for the MDNR
 8 letter, do you recognize the signature to be that of Randy
 9 Raymond?
 10 A. That's correct.
 11 Q. And was he the permit section chief at that
 12 time?
 13 A. Yes.
 14 Q. And Kendall Hale is indicated as the contact
 15 person on that page. Do you see that?
 16 A. Yes, that's correct.
 17 Q. And does that indicate that he would have
 18 written the letter?
 19 A. Yes.
 20 Q. And do you know, then, if he had -- if he was
 21 a person who had responsibility for actually performing the
 22 applicability assessment?
 23 A. Yes. He was assigned the project.
 24 Q. And would Randy Raymond have been in a
 25 position to be authorized to issue an applicability

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1 determination for MDNR as of the date of this letter?
 2 A. Yes.
 3 Q. And does this letter indicate that no
 4 construction permit of any kind was required for a proposed
 5 project for the replacement of the front half of the Thomas
 6 Hill Unit 3 boiler floor?
 7 MR. HANSON: Objection, document speaks for
 8 itself.
 9 THE WITNESS: Yes, it says no construction
 10 permit is required from the Missouri air pollution control
 11 program.
 12 BY MR. BONEBRAKE:
 13 Q. And that would include no PSD permit; correct?
 14 A. Yes, that would have been the initial
 15 determination.
 16 Q. And the Thomas Hill plant was a major source
 17 at this time; is that correct?
 18 A. Yes.
 19 Q. And was Associated Electric Cooperative, Inc.
 20 proposing this particular project because of wear and tear on
 21 boiler tubes in the front half of the Unit 3 boiler floor?
 22 MR. HANSON: Objection, lack of foundation.
 23 THE WITNESS: Their letters to us stated that
 24 they're considering replacing the boiler floor to increase
 25 the durability of the boiler tubes. And they're requesting a

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1 determination, yes.
 2 BY MR. BONEBRAKE:
 3 Q. And -- and based upon your review in
 4 preparation for this deposition, was there any indication
 5 in -- in MDNR's records that the tubes that were proposed to
 6 be replaced had caused any outages or derates at Thomas Hill
 7 Unit No. 3?
 8 A. I reviewed their letter and our letter. I did
 9 not see the e-mails prior to today. I don't see any
 10 description of outages in this correspondence. Oh, here's
 11 one in the e-mail. Oh, this is just when they want to
 12 replace this equipment prior to the outage. So I can't
 13 answer that question.
 14 Q. At the top of the second page of the letter,
 15 it's Bates-stamp No. AM-00024788, MDNR addresses the impact
 16 of the project and in the third -- make that the second
 17 sentence in that paragraph, it says as follows: The project
 18 will not result in an increase in emissions -- an increase in
 19 emission, singular, increase in utilization of the boiler and
 20 does not constitute reconstruction. Do you see that?
 21 A. Yes.
 22 Q. Do you know how MDNR determined that the
 23 project would not cause an increase in emissions?
 24 A. Again, this is -- this appears to be the file.
 25 We would have relied on the documentation that AECE provided

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1 to us. They say in their letter we do not anticipate a
 2 significant emissions increase. And it does not look like
 3 there's any additional calculations so we would have relied
 4 on the source's communication on that.
 5 Q. But MDNR as the permitting authority would
 6 make its own judgment call on whether or not emissions would
 7 be expected to increase; wouldn't they?
 8 A. We would review what is submitted and in some
 9 cases we would do our own calculations and in others we would
 10 accept the justification of the source. I don't see any
 11 spreadsheets on calculations here, so it appears that we
 12 accepted the source's statement.
 13 Q. Okay. I notice in the cc listing on the
 14 second page of the MDNR letter, John Noedel is listed as a cc
 15 recipient. Do you see that?
 16 A. Yes.
 17 Q. Who is John Noedel?
 18 A. He works for EPA Region 7. At that time,
 19 2004, he was most likely Missouri's permitting contact for
 20 EPA Region 7.
 21 Q. Would that have included contact for PSD
 22 permitting issues?
 23 A. Yes.
 24 Q. And do you know if there was any discussion
 25 between MDNR and US EPA relating to the applicability

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1 determination found in the May 15th, 2004, MDNR letter?
 2 A. Based on the e-mails, it appears that Kendall
 3 did have phone conversations with John Noedel just because he
 4 references John Noedel in one of the e-mails. But other than
 5 that, there's no specific details of the communication.
 6 Q. Did -- did US EPA ever object to the May 15th,
 7 2004 MDNR applicability determination letter?
 8 MR. HANSON: Objection, lack of foundation.
 9 THE WITNESS: Not to my knowledge.
 10 BY MR. BONEBRAKE:
 11 Q. And was it standard practice of MDNR to send
 12 copies of correspondence to ccs when an individual was listed
 13 as a cc recipient?
 14 A. Do you mean did -- because he's listed, did he
 15 receive a copy?
 16 Q. Well, my question is whether it would have
 17 been standard practice to send him a copy since he is listed
 18 as a cc recipient.
 19 A. A -- copies were sent to the three entities,
 20 if you will, listed: Our regional office, John Noedel and
 21 our file. A copy went to the file in this case.
 22 Q. And -- and do you know why in this particular
 23 case someone at Region 7 was identified as a cc recipient?
 24 A. As we talked earlier, we would try and copy
 25 EPA on letters when we asked for their opinion and guidance

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1 on documents so they would know that the -- our final
 2 determination.
 3 Q. Okay. We need to make sure our paper is well
 4 organized here.
 5 (Exhibit No. 11 was marked for
 6 identification.)
 7 BY MR. BONEBRAKE:
 8 Q. Okay. I'll present you with what's been
 9 marked as Exhibit No. 11 for identification. This is another
 10 multi-page exhibit with Bates-stamp Nos. AM00025858-MDNR
 11 through 864.
 12 A. Uh-huh. Okay.
 13 Q. And did you have a chance to -- to review any
 14 of the pages that comprise this exhibit in connection with
 15 your preparation for the deposition today?
 16 A. Yes, I reviewed the letter.
 17 Q. The MDNR March 29, 2006, letter?
 18 A. That's correct.
 19 Q. Any of the other pages?
 20 A. No.
 21 Q. And based upon your review of the pages that
 22 comprise this exhibit, do all the pages appear to be related
 23 to MDNR's applicability determination letter of March 29,
 24 2006, to Associated Electric Cooperative, Inc.?
 25 A. Yes.

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1 Q. And on the third page of this exhibit, which
 2 is the second page of the MDNR applicability determination
 3 letter, there's a signature line. Is that your signature,
 4 ma'am?
 5 A. Yes, it is.
 6 Q. And what was your involvement with this
 7 applicability determination?
 8 A. Very similar to past ones. I was the permit
 9 section chief, so I would have been presented with the draft
 10 recommendation from the permit writer, in this case, Michael
 11 Van Cleave, who reviewed the project and provided the
 12 recommendation that no construction permit was required.
 13 Q. And would you have had a chance to ask Mr. Van
 14 Cleave to make any additional inquiries that were necessary
 15 of the company in order to provide an applicability
 16 determination?
 17 A. That would have been my expectation that he
 18 would have done that prior to providing me this letter, yes.
 19 Q. And what was Mr. Van Cleave's position at the
 20 time of this letter?
 21 A. He would have been an Environmental Engineer
 22 II in our construction permit unit.
 23 Q. All right. And what was his involvement in
 24 connection with the determination set forth in the March 29,
 25 2006, letter?

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1 A. He was the staff member assigned to this
 2 project.
 3 Q. So would he have been the author of the
 4 letter?
 5 A. Yes.
 6 Q. And you would have then reviewed – reviewed
 7 the letter before signing?
 8 A. Yes.
 9 Q. And do you recall this particular letter
 10 from – from the time of its – its creation?
 11 A. Presented with it, I recall it. That was a
 12 few years ago and I sign a lot of letters, so.
 13 Q. But is it your standard practice to make sure
 14 that the – the letter is accurate and correct before you
 15 sign it?
 16 MR. HANSON: Objection, vague and ambiguous.
 17 THE WITNESS: To the extent I can. As permit
 18 section chief, I would have supervised approximately 30 staff
 19 members at that time.
 20 BY MR. BONEBRAKE:
 21 Q. Uh-huh.
 22 A. So I cannot do all the technical review myself
 23 so I rely on the technical expertise of the staff and I would
 24 have done that in this case.
 25 Q. And were you authorized as of March 29, 2006,

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1 to issue applicability determinations regarding construction
 2 permits on behalf of MDNR?
 3 A. Yes.
 4 Q. And did the MDNR March 26th – March 29, 2006,
 5 applicability determination relate to the proposed replacing
 6 of the boiler floor on Thomas Hill Unit No. 2?
 7 A. Yes.
 8 Q. And was the Thomas Hill plant a major source
 9 at that time?
 10 A. Yes.
 11 Q. And did MDNR conclude that no construction
 12 permit of any kind would be required with respect to
 13 replacing the boiler floor on Thomas Hill Unit No. 2?
 14 A. Yes, that is the determination.
 15 Q. And based upon this letter and any other
 16 materials that you have reviewed either today or in
 17 preparation for this deposition, do you know why the Thomas
 18 Hill plant was proposing to replace the boiler floor?
 19 MR. HANSON: Objection, this document speaks
 20 for itself.
 21 THE WITNESS: Based on the letter and the
 22 e-mails provided that appear to make up the project file,
 23 AECI said the floor on Unit 2 is subject to extreme heat and
 24 erosion from boiler slag and over-fire air corrosion. They
 25 go on to describe other problems with the boiler and then

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1 explain the replacing of the boiler floor, what that consists
 2 of. So that is their reasoning for why they are replacing.
 3 BY MR. BONEBRAKE:
 4 Q. And did MDNR inquire of Associated Electric
 5 Cooperative, Inc. in connection with this applicability
 6 assessment whether the boiler floor tubes the plant wanted to
 7 replace had been causing outages or derates?
 8 A. There does not appear to be any discussion of
 9 outages. There is a question on asking for more detail on
 10 what is being replaced.
 11 Q. And what page are you looking at?
 12 A. Page 2 of the e-mail.
 13 Q. There's a Bates-stamp number at the bottom.
 14 That's easiest way for us all to get to the same place.
 15 A. AM-00025862 MDNR.
 16 Q. Thank you.
 17 A. It's an e-mail from Todd Van Cleave to Tom
 18 Tolbert at AECI.
 19 Q. Uh-huh.
 20 A. Just asking to provide more detail on what
 21 exactly is being replaced, and there's a letter referenced,
 22 but I don't see that, so.
 23 Q. And by the way, just let me make sure that
 24 we're using common terminology, I've used the term "outage"
 25 in connection with boiler in a couple of occasions during the

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1 deposition.
 2 A. Uh-huh.
 3 Q. Do you have an understanding of what an outage
 4 means with respect to a coal-fired electric generating unit?
 5 A. A general shutdown of the facility for
 6 whatever reason.
 7 Q. And we've also used the term "derate." Do you
 8 have an understanding of what that term means?
 9 A. A what?
 10 Q. Derate.
 11 A. No.
 12 Q. For purposes of my questions to you, derate
 13 would mean a reduction in the generating capacity of a – of
 14 a unit –
 15 A. Okay.
 16 Q. – based upon some operational issue or
 17 constraint at the unit.
 18 A. Okay.
 19 Q. The top of the second page of the – the MDNR
 20 letter that – that you signed, I'd like to ask you a couple
 21 questions about – about that.
 22 A. Okay.
 23 Q. The third sentence reads, the project will not
 24 result in an increase in emissions, increased utilization of
 25 the boiler, and does not constitute reconstruction. What –

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1 what was meant by the phrase "increased utilization of the
 2 boiler?"
 3 A. Based on the understanding at the time, the
 4 main emphasis most likely was to make sure that the
 5 replacement of the parts was not giving AECEI more capacity or
 6 more utilization as the -- the word states.
 7 Q. And capacity would be change in the production
 8 capacity of the unit?
 9 A. Yes.
 10 Q. And the sentence I read also contains the
 11 phrase "will not result in an increase in emission?"
 12 A. Yes.
 13 Q. How did MDNR determine that no emission
 14 increase would occur as a result of the proposed emission of
 15 the boiler floor?
 16 A. Again, based on the documents, it appears that
 17 is what AECEI committed to us and in lieu of emission
 18 calculations, I would say we accepted their submission that
 19 no emissions were increasing.
 20 Q. And is it true that if MDNR had reason to
 21 believe that that position was incorrect, it would not have
 22 accepted Associated Electric Cooperative, Inc.'s submission
 23 on emissions?
 24 A. Yes, if they -- the permit writer, in this
 25 case Mike Van Cleave, thought there was some questions, he

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1 could have done emission calculations, estimated himself.
 2 Q. And similarly, you could have requested him to
 3 do so because you were signing the letter; right?
 4 A. Yes.
 5 Q. And did you request that he do any additional
 6 calculations?
 7 A. No.
 8 Q. So you were willing to accept, then, the
 9 company's position as well that the replacement of the boiler
 10 floor would not increase submissions?
 11 A. Based on my staff's recommendations, yes.
 12 (Exhibit No. 12 was marked for
 13 identification.)
 14 BY MR. BONEBRAKE:
 15 Q. Okay. We're showing you what's been marked
 16 Deposition Exhibit No. 12 for identification.
 17 A. Okay.
 18 Q. If you can take a look at that, please.
 19 A. Yes.
 20 Q. Have you had a chance to take a look at that
 21 exhibit?
 22 A. Yes.
 23 Q. And did you have a chance to review the pages
 24 that comprise this exhibit in preparation for your -- for the
 25 deposition today?

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1 A. Yes, I reviewed the March 5th, 2008, letter,
 2 the DNR letter.
 3 Q. And does it appear to you that all of the
 4 pages that comprise this exhibit relate to the applicability
 5 determination set forth in the March 5th, 2008, MDNR letter?
 6 A. Yes.
 7 Q. I got a question, first, for you on this page
 8 AM-00014353. It's the instruction from the fees worksheet.
 9 A. Yes.
 10 Q. And I've seen a few of these in the
 11 applicability determinations --
 12 A. Uh-huh.
 13 Q. -- and can you tell us what the -- what the
 14 purpose of the -- the worksheet is?
 15 A. For many of our construction permit projects,
 16 we are able to charge a fee of \$50 an hour for review time,
 17 so we track -- the permit writers track their time on a fee
 18 sheet. It's evolved over the years to become more
 19 electronic, but at one time, I also asked and we still do,
 20 permit writers also track their time on applicability
 21 determinations. We cannot charge fees for them, but it is
 22 useful to know how much staff time we're taking on permit
 23 determinations.
 24 Q. So this particular worksheet, does it indicate
 25 to you that two hours were -- were spent by a permit engineer

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1 on -- on the work related to the applicability determination?
 2 A. Yes.
 3 Q. And who was the assigned staff engineer?
 4 A. Tim Hines.
 5 Q. And did Tim Hines write the March 5th, 2008,
 6 MDNR applicability determination letter?
 7 A. Yes.
 8 Q. What was his position at the time?
 9 A. Environmental engineer in the construction
 10 permit unit.
 11 Q. Is he with MDNR at this time?
 12 A. No, he is not.
 13 Q. Do you know where he's employed?
 14 A. He is not. He's retired.
 15 Q. And page 2 of the MDNR letter contains a
 16 signature block?
 17 A. Yes.
 18 Q. Is that your signature?
 19 A. Yes.
 20 Q. What was your involvement with this
 21 applicability determination?
 22 A. I was the permit section chief at the time so
 23 I signed this letter drafted based on technical staff
 24 recommendation.
 25 Q. And were you authorized as of the date of this

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1 letter to issue applicability determinations regarding
 2 construction permitting on behalf of MDNR?
 3 A. Yes.
 4 Q. And was the MDNR's determination as set forth
 5 in the March 5th, 2008, letter that no construction permit of
 6 any kind would be required with respect to the proposed
 7 project on Unit 3 at the Sibley generating station?
 8 A. Yes.
 9 Q. And what was that proposed project?
 10 A. It states that proposed project consists of
 11 changing the shape to form a dam or boiler nose in front of
 12 the screen tubes.
 13 Q. And do you know, was that a change in design
 14 from the facility's original design?
 15 MR. HANSON: Objection.
 16 THE WITNESS: Since they're changing the shape
 17 of the tube, I would assume that it is a -- could be equated
 18 to a change of design, so.
 19 BY MR. BONEBRAKE:
 20 Q. And are you familiar with the Sibley
 21 generating station in Missouri?
 22 A. Yes.
 23 Q. And is it a major source?
 24 A. Yes.
 25 Q. Do you know if the -- based upon your review

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1 of -- of documents or other information in preparation for
 2 the deposition today, if the proposed project was intended to
 3 increase the efficiency of the boiler at Unit 3 at the Sibley
 4 generating station?
 5 A. There is not enough information in the
 6 documents to answer that.
 7 Q. Do you have a recollection of this particular
 8 applicability determination?
 9 A. Not anything more specific than the letter.
 10 Q. In the -- I'd like to ask a couple questions
 11 relating to the second paragraph, which starts with,
 12 according to your letter. And the third sentence reads, this
 13 proposed modification to create a boiler nose will not
 14 increase maximum heat input or emissions in any criteria
 15 pollutant from the boiler and will not eliminate outages or
 16 alter the operation of the boiler in any significant way.
 17 What is maximum heat input?
 18 A. You're going to ask for a little more
 19 technical expertise than my brain can handle right now, but
 20 that would be the -- one of the parameters of the boiler, the
 21 maximum heat input.
 22 Q. Do you know if the heat input is related to
 23 the amount of coal that can be busted -- combusted in the
 24 boiler?
 25 A. Again, that's kind of outside my technical

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1 expertise at the moment, but that sounds familiar.
 2 Q. How did MDNR determine that the proposed
 3 modification would not increase emissions?
 4 A. Again, based on the review of this project
 5 file, it appears that that is what Aquila at the time, who
 6 owned this plant, submitted. And the technical staff's
 7 expertise, and that was his statement and recommendation.
 8 Q. So MDNR accepted the position that the new
 9 boiler nose would not increase emissions?
 10 A. Yes.
 11 Q. The last sentence in that paragraph reads,
 12 this proposed construction or modification will not emit any
 13 pollutants. Does that indicate that the tubes -- the new
 14 tubes themselves would not emit any pollutants?
 15 MR. HANSON: Objection, I think that misstates
 16 the document.
 17 THE WITNESS: It -- in my opinion, the
 18 statement is self-explanatory. It just says that the
 19 proposed construction will not emit pollutants, so the
 20 description of the construction, the tubes shaping to form a
 21 dam or boiler nose.
 22 BY MR. BONEBRAKE:
 23 Q. So does -- does that mean that the -- the new
 24 tubes would not emit any pollutants?
 25 A. That's what this letter is stating, that the

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1 proposed construction will not emit any pollutants.
 2 Q. Is that relevant to the modification inquiry?
 3 A. I'm not sure I understand your question.
 4 Q. Is the -- the fact that the new tubes will not
 5 emit any pollutants relevant to the determination of whether
 6 the proposed project would be a modification?
 7 MR. HANSON: Objection, vague and ambiguous.
 8 THE WITNESS: I mean, I don't -- there's not a
 9 lot of information, obviously not a lot of time was spent by
 10 the permit review engineer, so I -- I would say that that --
 11 he did use that as a determination.
 12 BY MR. BONEBRAKE:
 13 Q. And so the permit engineer -- I want to make
 14 sure I understood what you just said. Did the permit
 15 engineer determine that no emission increase would be
 16 expected because the new tubes themselves would not emit any
 17 pollutants?
 18 A. Without anything in writing from the permit
 19 writer, all I have to rely on is what he proposed in the
 20 letter, which just says that the proposed construction will
 21 not emit any pollutants, so.
 22 Q. Has -- has MDNR in -- in other applicability
 23 determinations looked at the issue of whether the proposed --
 24 strike that.
 25 As we talked about, there were -- there were

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1 two hours that were spent by the project engineer on this
 2 project; is that right?
 3 A. Yes.
 4 Q. And does that indicate to you that this was a
 5 fairly easy determination for MDNR?
 6 MR. HANSON: Objection, vague and ambiguous.
 7 THE WITNESS: I don't know easy. It, on the
 8 surface, the applicant described what they were doing and we
 9 concurred with it. So based on the technical staff's
 10 knowledge, it was a reasonable claim and so they drafted the
 11 response.
 12 BY MR. BONEBRAKE:
 13 Q. And by this point in time, MDNR had issued, as
 14 we've seen, a number of applicability determinations to power
 15 generators indicating that boilers tube replacement and
 16 change would not be a modification; correct?
 17 MR. HANSON: Objection, lack of foundation,
 18 vague and ambiguous.
 19 THE WITNESS: I don't know if Tim Hines relied
 20 on those past determinations or not or just on his knowledge
 21 of this project in this circumstance.
 22 BY MR. BONEBRAKE:
 23 Q. A -- a source can propose either to replace an
 24 entire emission unit or something with -- within an emission
 25 unit; right?

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1 A. Uh-huh.
 2 Q. In instances where a source proposes to
 3 replace something within a unit as opposed to the whole unit,
 4 has MDNR considered in making applicability determinations
 5 whether the particular equipment changed within the unit
 6 itself emits or has the potential to emit?
 7 MR. HANSON: Objection, lack of foundation.
 8 THE WITNESS: Without reviewing every single
 9 file we do, I would say that probably fits something that we
 10 have done, but without a specific example, I couldn't speak
 11 to that.
 12 BY MR. BONEBRAKE:
 13 Q. Can you describe what you have in mind? It
 14 sounds like you have something in mind that -- that would fit
 15 that description.
 16 A. I don't have anything in mind.
 17 Q. Okay. All right. I'd like to draw your
 18 attention back to Missouri Rule 1996 edition that we were
 19 talking about earlier.
 20 MR. BONEBRAKE: And David, what exhibit is
 21 this?
 22 MR. LORING: Exhibit 6.
 23 BY MR. BONEBRAKE:
 24 Q. Exhibit 6. Thank you. And specifically, page
 25 21 of that exhibit. I should say it's page 21 of that

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1 exhibit, which is part of 10-6.060, section 1.
 2 A. Yes.
 3 Q. And we talked a little bit earlier this
 4 morning about section 1, which is the applicability section.
 5 A. Right.
 6 Q. And we talked about 1(C). I'd like to now
 7 talk about 1(E), which is entitled excluded activities. And
 8 do you see that? That's in the bottom of the middle column
 9 on page 21.
 10 A. Okay.
 11 Q. And there are a number of subparts for
 12 excluded activities.
 13 A. Right.
 14 Q. And do you know, was the excluded activities
 15 provision in the Missouri construction permitting rules added
 16 in -- in the mid-1990s to the construction permit rules?
 17 MR. HANSON: Objection, the rulemaking would
 18 speak for itself.
 19 THE WITNESS: I don't know the exact date of
 20 when this particular section was added.
 21 BY MR. BONEBRAKE:
 22 Q. Were the -- were the exclusions set forth in
 23 1(E) in place in the rules at the time that you were working
 24 as a permit engineer at MDNR starting in 1999?
 25 A. Yes.

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1 Q. And do you know what the intention was behind
 2 adding excluded activities section to the construction permit
 3 rules?
 4 A. I don't know the intention at the time this
 5 was added. We do have a similar section in our current
 6 rules, though it's in a different location. It's in 6.061.
 7 And our interpretation of the intention now is that these
 8 would be excluded activities. If the source does not trigger
 9 a PSD permit, then this is another opportunity for exemptions
 10 from permitting.
 11 Q. You indicated that that's the intention now?
 12 A. Yes.
 13 Q. Which implied to me that the intention has --
 14 had changed from some prior time. Is my surmise from your
 15 answer correct?
 16 A. Well, I was just responding to your question
 17 on what was the intention for this in the rule. I -- I can't
 18 speak to why this was added at the time, but how we interpret
 19 it now. That was my attempt to answer your question without
 20 knowing what was going on in 1996.
 21 Q. And -- and when you say now, you mean as the
 22 excluded activities are included in 6.061?
 23 A. Yes.
 24 Q. And -- and has MDNR's interpretation of the
 25 excluded activities now set forth in Section 061 changed from

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1 when those excluded activities were set forth in Section 060?
 2 A. The first part of the question was?
 3 Q. Has there been a change in MDNR
 4 interpretation?
 5 A. Not that I'm aware of, no.
 6 Q. Let's talk a little bit about -- about
 7 excluded activities section --
 8 A. Okay.
 9 Q. -- then in E, and I'm going to come back, I
 10 think, and ask you some questions later on --
 11 A. Okay.
 12 Q. -- about the interpretation. E(1) is an
 13 exclusion for routine -- routine maintenance parts,
 14 replacement or relocation of emission units. And it goes on
 15 from there; correct?
 16 A. Uh-huh, yes.
 17 Q. And subparts A through F are examples of
 18 changes that are deemed by the rule to be routine maintenance
 19 parts, replacement or relocation of emission units; right?
 20 A. They are examples given, yes.
 21 Q. And by virtue of their being listed as
 22 examples, MDNR is also in this rule determining that they
 23 would not have an expected impact on either the potential to
 24 emit or air quality; correct?
 25 MR. HANSON: Objection, the document speaks

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1 for itself.
 2 THE WITNESS: Basically this rule is stating
 3 that a minor construction permit is not needed if these
 4 activities occur and that's as much as it speaks to.
 5 BY MR. BONEBRAKE:
 6 Q. Well, let's -- let's look at the language.
 7 A. Uh-huh.
 8 Q. Section 1 reads, routine maintenance parts
 9 replacement and relocation of emission units within the same
 10 installation which do not involve either an appreciable
 11 change either in the quality of nature or any increase in
 12 either the potential to emit or the effect on air quality of
 13 the emissions of any air contamination. And then A through E
 14 are examples of projects which would not be expected to have
 15 that effect; correct?
 16 A. Yes.
 17 Q. So, for instance, boiler tube changes would
 18 not be expected to have an impact on potential to emit;
 19 correct?
 20 MR. HANSON: Objection, the document speaks
 21 for itself.
 22 THE WITNESS: That is what the rule is
 23 stating, yes.
 24 BY MR. BONEBRAKE:
 25 Q. Another example listed is turbine replacements

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1 in 1(F); is that correct?
 2 MR. HANSON: Objection, same objection.
 3 THE WITNESS: It says replacement of engines,
 4 compressors or turbines as part of a normal maintenance
 5 program, yes.
 6 BY MR. BONEBRAKE:
 7 Q. So has it been MDNR's position that boiler
 8 tube and turbine replacements are not expected to have an
 9 impact on the potential emissions of a unit or on air
 10 quality?
 11 A. In this context of excluded activities from
 12 minor source permitting, yes.
 13 (Exhibit No. 13 was marked for
 14 identification.)
 15 BY MR. BONEBRAKE:
 16 Q. Showing you what's been marked as Deposition
 17 Exhibit No. 13 for identification, if you could take a look
 18 at that, please.
 19 A. Okay.
 20 Q. And you've had a chance to take a look at this
 21 exhibit?
 22 A. Yes.
 23 Q. And were you able to -- strike that.
 24 Did you have an opportunity to -- to review
 25 any pages that comprised this exhibit in preparation for your

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1 deposition today?
 2 A. I think I might have seen the October 10th,
 3 2001 letter, but none of the rest of the documents.
 4 Q. You're referring to MDNR's October 10, 2001
 5 letter to Align Tech Systems, Inc.?
 6 A. Yes.
 7 Q. And is that a construction permit
 8 applicability determination by DNR?
 9 A. Yes.
 10 Q. And do the other pages that comprise this
 11 exhibit based upon your review all relate to that MDNR
 12 applicability determination?
 13 A. Yes.
 14 Q. I'd like to turn to the last couple of pages
 15 of this exhibit. The first of those last two pages is
 16 Bates-stamped AM00449529-MDNR. And this is a letter from ATK
 17 Aligned Tech Systems to Refaat Mefrakis at MDNR; is that
 18 correct?
 19 A. Yes.
 20 Q. And is Mr. Mefrakis still at MDNR?
 21 A. Yes.
 22 Q. And in what position?
 23 A. He is in our water pollution control program.
 24 I believe he is the section chief of one of their permit
 25 sections. I'm not exactly sure of his title.

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1 Q. And Tech Systems in its June 6th, 2001, letter
 2 to MDNR was asking for a PSD applicability determination with
 3 respect to proposed work on the boilers at its Alliant Lake
 4 City Small Caliber Ammunition plant; correct?
 5 MR. HANSON: Objection, the document speaks
 6 for itself.
 7 BY MR. BONEBRAKE:
 8 Q. And MDNR's October 10, 2001, letter to Alliant
 9 Tech Systems was a response to that applicability
 10 determination request; is that correct?
 11 MR. HANSON: Same objection.
 12 THE WITNESS: Yes.
 13 BY MR. BONEBRAKE:
 14 Q. And MDNR determined that no construction
 15 permit of any kind would be required for the project proposed
 16 by Alliant Tech Systems, Inc. as described in Tech System
 17 Inc.'s letter; is that correct?
 18 MR. HANSON: Objection, same objection.
 19 THE WITNESS: Yes.
 20 BY MR. BONEBRAKE:
 21 Q. The MDNR letter has a signature block for
 22 Randy Raymond, do you see that?
 23 A. Yes.
 24 Q. Does that appear to you to be Randy Raymond's
 25 signature?

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1 A. Yes.
 2 Q. And was he permit section chief as of 2001?
 3 A. Yes.
 4 Q. And was he authorized as of 2001 to issue
 5 applicability determinations for MDNR?
 6 A. Yes.
 7 Q. The third paragraph of MDNR's October 10,
 8 2001, letter, first sentence reads, upon review of all of the
 9 information submitted by LCAAP, the APCP has determined that
 10 this project constitutes, quote, routine maintenance, end
 11 quote, which is an excluded activity under Missouri State
 12 Rule 10 -- CSR 10-6.0 -- 6.060(1)(E)(1). Do you see that?
 13 A. Yes.
 14 Q. And that is the routine maintenance provision
 15 of the excluded activities section of Missouri's construction
 16 permitting rules, is it not? And if you would like to take a
 17 look at the Missouri construction permit rules, please do so.
 18 I think it's page 21.
 19 A. Okay. I'm sorry?
 20 Q. Page 21 of the rules. And the letter
 21 references 6.060(1)(E)(1).
 22 A. That is the correct citation for that, yes.
 23 Q. So MDNR was determining -- strike that.
 24 The Lake City Ammunition -- Army Ammunition
 25 plant was a major source requesting an applicability

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1 determination; is that correct?
 2 A. I do believe Lake City is a major source, yes.
 3 Q. So MDNR determined based upon the excluded
 4 activities provision found in section 6.060(1)(E)(1) that a
 5 major source do not require a PSD permit because the proposed
 6 project was routine maintenance; is that correct?
 7 MR. HANSON: Objection, this document speaks
 8 for itself.
 9 THE WITNESS: That is what the letter states,
 10 yes.
 11 BY MR. BONEBRAKE:
 12 Q. Now you were earlier mentioning when I was
 13 asking you questions about section 1(E) that the excluded
 14 activities section was related to minor source permit.
 15 A. Yes.
 16 Q. But this is an MDNR October 10th, 2001, letter
 17 was a major NSR applicability determination, was it not?
 18 A. When you talk about major applicability, we --
 19 we probably have different terms. If a PSD permit was not
 20 required, then the next step is do they require a minor
 21 permit, which is when we would use this exclusion because the
 22 excluded activities under (E) is not allowed for if a PSD
 23 permit is required. And that's in (F), exception to excluded
 24 activities.
 25 So if the activity would be subject to PSD,

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1 then these excluded activities are not. So it was my
 2 interpretation of this letter is that it was determined the
 3 activity was not triggered -- a PSD permit was not triggered
 4 and therefore they applied the exemption under the excluded
 5 activities of 6.060(1)(E).
 6 Q. Where in -- where in this letter do you see an
 7 indication that there was a PSD applicability determination
 8 other than by reference to the boiler tube -- boiler tube
 9 exclusion or other exclusion in section 6.060(1)(E)(1)?
 10 A. I am drawing the conclusion that because they
 11 reference this rule, that they had determined that a PSD
 12 permit was not required and therefore they could use this
 13 exemption.
 14 Q. Are you aware of a separate applicability
 15 determination with respect to this project?
 16 A. No.
 17 Q. So that's your inference based upon your
 18 current interpretation of the Missouri rules?
 19 A. Yes.
 20 Q. Are you aware of whether -- well, strike that.
 21 I think we'll get to the related questions when we get to
 22 some related documents.
 23 A. Okay.
 24 MR. BONEBRAKE: We're about 12:30, so why
 25 don't we go off the record and take a lunch break.

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1 MR. HANSON: Okay.
 2 VIDEOGRAPHER: We're off the record. It's
 3 12:34.
 4 (A lunch break was held.)
 5 VIDEOGRAPHER: We are back on the record after
 6 a lunch break. It's 1:48 p.m.
 7 BY MR. BONEBRAKE:
 8 Q. Good afternoon.
 9 A. Yes.
 10 Q. I had a couple of follow-up questions from
 11 this morning's discussion before turning to some new issues.
 12 One is I – I realized when I – when I was going back over
 13 my notes that I – I didn't ask at all about your – your
 14 education and I just was kind of curious about that. Do you
 15 have a college degree?
 16 A. I do. I have a bachelor's in chemical
 17 engineering from the University of Missouri-Columbia.
 18 Q. And do you have any post-graduate degrees?
 19 A. No.
 20 Q. And are you a PE?
 21 A. No.
 22 Q. We were talking this morning about
 23 applicability determinations issued by MDNR. Is it MDNR's
 24 understanding that sources that receive those determinations
 25 will rely upon them?

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1 A. Yes.
 2 (Exhibit No. 14 was marked for
 3 identification.)
 4 BY MR. BONEBRAKE:
 5 Q. And I'll hand you what's been marked as
 6 Deposition Exhibit No. 14 for identification. Take a moment
 7 and take a look at that, please.
 8 A. Okay.
 9 Q. Have you had a chance to take a look at the
 10 document?
 11 A. Yes.
 12 Q. Have you seen this document before?
 13 A. No.
 14 Q. We talked this morning about a John Noedel at
 15 Region 7.
 16 A. Yes.
 17 Q. Is that John Noedel's name spelled as the same
 18 as the – the name indicated in the from box?
 19 A. Yes.
 20 Q. And do you recognize the name Dan Rodriguez?
 21 A. Yes.
 22 Q. And who is Dan Rodriguez?
 23 A. He was an employee of EPA Region 7 in their
 24 permit section at one time. I don't remember the time frame,
 25 but at one time, he was Missouri's state permit coordinator.

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1 Q. And Mr. Noedel, I think we discussed this
 2 morning, is still with Region 7; is that correct?
 3 A. Yes.
 4 Q. And do you know, is he Region 7's NSR
 5 coordinator?
 6 A. He does a lot with NSR. I don't know if he's
 7 termed the NSR coordinator, what his role is right now.
 8 Q. The first sentence of the top e-mail from John
 9 Noedel reads, I think the agency generally acknowledges that
 10 boiler tube replacement is routine; therefore, not a
 11 modification. Do you see that?
 12 A. Yes.
 13 Q. And would you agree with me that in light of
 14 the -- the author and recipient of this e-mail, that the
 15 agency at issue in this e-mail is US EPA?
 16 MR. HANSON: Objection, the document speaks
 17 for itself.
 18 THE WITNESS: John works for EPA, so if he's
 19 responding as his employer, the agency, I'd say yes.
 20 BY MR. BONEBRAKE:
 21 Q. And were you aware back in the time frame that
 22 you started working with -- with MDNR back in 1999, of an US
 23 EPA position that boiler tube replacement was routine?
 24 A. No.
 25 Q. Do you know if since 1997, US EPA and NSR

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1 enforcement litigation has offered a different view, that is
 2 boiler tube replacement is not routine?
 3 MR. HANSON: Objection, lack of foundation.
 4 THE WITNESS: I don't recall if it's that
 5 specific. I would say with a lot of things that we do,
 6 interpretations change and evolve with regulations. So I
 7 can't speak to that.
 8 BY MR. BONEBRAKE:
 9 Q. The second sentence refers to increased
 10 deficiency of the turbine. And again, we're at the top
 11 e-mail. Do you see that?
 12 A. Yes.
 13 Q. And the third sentence says, they may produce
 14 more electricity per unit than fuel, but that seems like a
 15 good thing. Does MDNR believe that efficiency improvements
 16 are a good thing for power plants?
 17 A. Sure. I mean, efficiency improvements in --
 18 in most things are good.
 19 Q. And why would they be good for a power
 20 generator?
 21 A. Well, in -- in most cases, if you're more
 22 efficient, then you are using less resources. I just equate
 23 it to staff time. When I'm asking staff to be more efficient
 24 with their time, they're -- they're taking less time to do
 25 things, so. That's -- that's my only analysis that I can

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1 make on that.
 2 Q. And do you know as of 1997, if US EPA had a
 3 protocol on the process for making routine determinations?
 4 MR. HANSON: I'm sorry, I didn't hear the
 5 question.
 6 MR. BONEBRAKE: If EPA had a protocol in the
 7 process for making routine determinations.
 8 MR. HANSON: Objection, lack of foundation.
 9 THE WITNESS: A protocol, I'm not sure I would
 10 call it a protocol. There is a document -- there is a
 11 database of many documents on many different topics and so
 12 that would probably be addressed in their database, their
 13 analysis on routine or any other subject.
 14 (Exhibit No. 15 was marked for
 15 identification.)
 16 BY MR. BONEBRAKE:
 17 Q. We're presenting to you what's been marked as
 18 Deposition Exhibit No. 15 for identification, if you could
 19 take a look at that, please.
 20 A. Okay.
 21 Q. Did you review any of the documents that
 22 comprise this exhibit in preparation for MDNR's deposition
 23 today?
 24 A. I did see the MDNR letter December 23rd, 2003.
 25 I have not reviewed the others, but -- recently, but I did at

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1 the time of the project issuance.
 2 Q. So you're -- you're referring to the December
 3 23, 2003, letter from MDNR to Mr. Tad Johnson at the Columbia
 4 Municipal Power Plant?
 5 A. Yes.
 6 Q. And that related to project number
 7 2003-11-040; correct?
 8 A. That's correct.
 9 Q. And does it appear to you based upon your
 10 review of these documents that all the documents that
 11 comprise this exhibit relate to the applicability
 12 determination set forth in MDNR's December 23, 2003 letter?
 13 A. Yes.
 14 Q. And the second page of MDNR's December 23,
 15 2003, letter there's a signature block?
 16 A. Yes.
 17 Q. And is that your signature?
 18 A. Yes.
 19 Q. And what was your involvement with this
 20 applicability determination?
 21 A. At the time, I was the interim new resource
 22 review unit chief, so I would have reviewed the determination
 23 for the technical staff and in this instance, I signed the
 24 letter.
 25 Q. And did you have authority as unit chief to

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1 sign applicability determinations on behalf of MDNR?
 2 A. Yes.
 3 Q. And who was the involved engineering staff
 4 on -- on this project?
 5 A. Lina Kline drafted the letter.
 6 Q. And that's L-i-n-a-?
 7 A. Yes.
 8 Q. And is she still with MDNR?
 9 A. No, she is with Fred Weber.
 10 Q. Okay. I think you mentioned that this
 11 morning. Thank you.
 12 This MDNR determination via the December 23,
 13 2003, letter indicates that no construction permit of any
 14 kind is required for the replacement of boiler tubes that was
 15 replaced -- that was proposed by Columbia Municipal Power
 16 Plant; right?
 17 A. That's correct.
 18 Q. And this municipal -- strike that.
 19 The proposed project was described in Shell
 20 Engineering's letter of November 7, 2003, to Ms. Kyra Moore
 21 and I'm looking at Bates-stamp AM00025847-MDNR?
 22 A. Yes, that's correct.
 23 Q. That's correct?
 24 A. Yes.
 25 Q. And based upon your review of the documents,

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1 what was the project that was proposed for MDNR's
 2 determination?
 3 A. It is the replacing of boiler tubes on the
 4 back wall and lower part of the economizer of Boiler No. 7 at
 5 the Columbia Power Plant.
 6 Q. And the cost information in paragraph three in
 7 the first page of the December 23, 2003 letter, is that
 8 accurate cost information, to your knowledge?
 9 A. To my knowledge, we would have received that
 10 cost analysis from the source, most likely, so yes.
 11 Q. In the second paragraph of the first page of
 12 the MDNR letter --
 13 A. Uh-huh.
 14 Q. -- there's a sentence I want to talk with you
 15 about, it's the last sentence of that paragraph.
 16 A. Yes.
 17 Q. And it reads, replacement of the boiler tubes
 18 is considered to be routine maintenance by the state of
 19 Missouri and is excluded from permitting per Missouri state
 20 rule 10 CSR 10-6.061(3)(B)(1)(d). Now that's the boiler tube
 21 excluded activity provision of Missouri's construction
 22 permitting rules; is that correct?
 23 A. Yes.
 24 Q. And so was MDNR determining in this
 25 determination that no permit of any kind, including a PSD

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1 permit, was required because boiler tube projects are routine
 2 under that exclusion of the Missouri rules?
 3 A. That's a full question, so I'm going to answer
 4 it in pieces. We would have determined that the project did
 5 not trigger PSD permitting and then therefore would have
 6 turned to our 6.061 rule to determine if it needed a minor
 7 source permit for any reason, and that is the exemption that
 8 is listed here, that it falls under that exemption. So yes,
 9 no permit is required.
 10 Q. Are you suggesting that there was a separate
 11 or different applicability determination for PSD that's not
 12 set forth in this March 23, 2003, letter?
 13 A. No.
 14 Q. So if the non-applicability determination for
 15 PSD is found in this letter, where do you see that
 16 determination, other than by reference to the boiler tube
 17 exclusion?
 18 A. It's inferred in that we were doing a no
 19 construction permit required letter for a major source,
 20 therefore it was inferred that a PSD permit is not required.
 21 Then we would go forward to determine if a minor source
 22 permit is required, and that's what the next step is. So
 23 it's all part of the same applicability process.
 24 Q. So -- so you're inferring that there was a PSD
 25 non-applicability determination not set forth in the

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1 December 23, 2003, letter?
 2 A. I'm inferring that it's all-inclusive, that in
 3 order for us to use our exemptions in 6.061 on a major
 4 source, we're talking this project itself is not subject to
 5 PSD and therefore we can use the 6.061 exemption.
 6 Q. Okay.
 7 A. It's semantics, but that's our interpretation
 8 of it currently.
 9 Q. Well, what do you mean by -- by "currently?"
 10 A. That's how we issue our applicability
 11 determinations.
 12 Q. What about back in 2003, the date of this
 13 letter?
 14 A. That -- that is the inference just because we
 15 reference 6.061. There is a paragraph as we saw earlier in
 16 6.061 that it cannot be utilized if it's a project subject to
 17 our Section 7, 8, or 9, which is our major source permitting
 18 rules. So by inference, because we are using 6.061, then we
 19 are assuming this is not a PSD project and citing the 6.061
 20 exemption --
 21 Q. Okay.
 22 A. -- from any other permit needed.
 23 Q. And then what was the basis for MDNR's
 24 assumption that a PSD permit would not be required?
 25 A. That is not specifically spelled out here, but

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1 it did not trigger under the definitions in our section 8
 2 rules or definition of major modification. It did not
 3 trigger a PSD analysis.
 4 Q. So if I'm hearing you correctly, you're saying
 5 that there's a determination for PSD non-applicability, the
 6 basis for which is nowhere set forth in this letter?
 7 A. Well, the basis is the knowledge of technical
 8 staff to know that what they're looking at is not triggering
 9 PSD.
 10 Q. And as the representative of MDNR at this
 11 deposition, what knowledge of engineering staff informed them
 12 that no PSD permit would be required for this boiler project?
 13 A. The knowledge that they acquired on the job
 14 and working in the permit section and reviewing permit
 15 projects and knowing what PSD regulations require.
 16 Q. Is there any document that sets forth the
 17 basis for the MDNR's determination that no PSD permit was
 18 required?
 19 A. This is the document that sets that forth.
 20 Q. And you're referring to the general statement
 21 that no construction permit is required --
 22 A. Yes.
 23 Q. -- which includes no PSD permit?
 24 A. Yes.
 25 Q. But is there a -- is there a -- I guess my

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1 question, then, for you, is: Is there any document that sets
 2 forth the rationale for the conclusion that there is no PSD
 3 permit required for this project?
 4 A. Well, the permit writer would review what's
 5 being done and the activity and determine if this activity
 6 would trigger PSD permitting. And in this case, she
 7 determined it did not and moved forward with the no permit
 8 required.
 9 Q. In the second to last paragraph on the first
 10 page of the MDNR letter, there's a reference to EPA's routine
 11 maintenance repair and replacement guidance. Do you see
 12 that?
 13 A. Yes.
 14 Q. To what guidance were you referring to?
 15 A. Well, the consultant for the Columbia power
 16 plant requested that we agree with our opinion that this
 17 falls under EPA's routine maintenance repair and replacement
 18 guidance. At one time, there was a proposed rule, but I
 19 believe it was never finalized and I'm assuming that's the
 20 guidance they're referring to.
 21 Q. Can we take a look at the Shell letter --
 22 A. Yes.
 23 Q. -- in page AM00025847?
 24 A. Yes.
 25 Q. And there's the fourth paragraph down it says,

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1 it is also our opinion that this procedure falls under EPA's
 2 routine maintenance repair and replacement, RMRR guidance, do
 3 you see that?
 4 A. Yes.
 5 Q. And there they list a number of factors. They
 6 say the RMRR guidance weighs the nature, the extent, the
 7 purpose, the frequency and the cost of the work. Do you see
 8 that?
 9 A. Yes.
 10 Q. And now you were referring to a proposed rule.
 11 Were you thinking about the ERP rule, equipment replacement
 12 rule?
 13 A. There were many documents on routine
 14 maintenance repair and replacement, so I'm not -- I can't
 15 speak to which particular document this is, so.
 16 Q. Do you know if the factors that -- that I just
 17 read into the record from the Shell letter, do you know if
 18 those were part of the WEPCo applicability determination that
 19 we talked about this morning?
 20 A. Yes.
 21 Q. They are, to your knowledge?
 22 A. Yes. Those are very common terms in routine
 23 maintenance and repair.
 24 Q. Going back to your letter, and again the
 25 second to last paragraph on the bottom of the first page,

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1 reads, the state of Missouri has not adopted the guidance
 2 into the state implementation plan at this time. Therefore,
 3 concurrence is unnecessary.
 4 A. Uh-huh.
 5 Q. So is it correct that as of 2003, MDNR had not
 6 adopted the WEPCo test for routine maintenance repair and
 7 replacement?
 8 A. Yes.
 9 Q. That is correct?
 10 A. Yes.
 11 Q. So for purposes of determining whether a
 12 project was or was not routine maintenance repair and
 13 replacement for purposes of PSD applicability, as of 2003,
 14 what test or routine was MDNR using?
 15 A. I would say we are using the guidance
 16 documents that EPA provides, including the WEPCo with these
 17 terms. But in this letter, we're just stating that we're not
 18 concurring with the applicant's statement.
 19 Q. Well, if this -- your letter says, does it
 20 not, the state of Missouri has not adopted the guidance?
 21 A. Right.
 22 MR. HANSON: Objection, misstates the
 23 document.
 24 BY MR. BONEBRAKE:
 25 Q. So are you saying that MDNR was applying it,

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1 although it had not adopted it?
 2 A. We use guidance documents all the time in
 3 everything we do. We use guidance from EPA, verbal and
 4 written, and all this is saying is that we are not saying in
 5 this letter that we concur with applicant's statement because
 6 it is not part of our rule in our SIP. That's all that says.
 7 Q. So do you -- do you know if MDNR determined
 8 that the project at issue in the December 23, 2003 letter was
 9 or was not determined to be routine maintenance repair or
 10 replacement for purposes of PSD applicability?
 11 A. Based on this letter, we did not make that
 12 determination.
 13 Q. Does that mean necessarily that MDNR
 14 determined that that project was not -- did not trigger PSD
 15 because it would not be expected to cause an emission
 16 increase?
 17 A. I can't answer that based on what's here. I
 18 don't -- I don't know the interpretations used at the time,
 19 so there's not enough information in this file to answer that
 20 question.
 21 Q. And the reference to US EPA's guidance
 22 regarding routine would have only been relevant for a PSD
 23 applicability determination; right?
 24 A. Yes.
 25 Q. So this letter is addressing PSD applicability

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1 explicitly; is that correct?
 2 A. Yes. As we discussed, it -- the assumption is
 3 that the determination of PSD applicability was made and
 4 there was not a PSD permit triggered and therefore we went on
 5 to determine if any additional air permits were required from
 6 the state of Missouri.
 7 Q. Well, how would you determine based upon the
 8 record the basis for the MDNR decision that no PSD permit was
 9 required?
 10 A. As I mentioned earlier, I'm relying on the
 11 technical knowledge of the staff member involved and that her
 12 knowledge of this project did not trigger PSD. Other than
 13 that, I can't speak for any more specifics because there's
 14 nothing listed in the file.
 15 Q. And you signed this letter, did you not?
 16 A. Yes.
 17 Q. And so you were satisfied at the time that
 18 that was the correct conclusion regarding PSD?
 19 A. Yes.
 20 Q. And on what basis did you believe that was the
 21 correct conclusion regarding PSD?
 22 A. Again, I rely on the technical expertise of my
 23 staff. We have a lot of projects across our desk and -- and
 24 I need to rely on their technical expertise. And in this
 25 case, I did, so.

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1 Q. So going back to the time frame in -- in -- in
 2 2003, then. Was there -- was there a process or protocol
 3 that was used by MDNR to determine whether or not a project
 4 was RMRR for purposes of PSD applicability?
 5 A. Was there an official process? No. I mean,
 6 we would use the EPA documents and the guidance and the
 7 factors as spelled out in Shell Engineering's letter on
 8 routine maintenance.
 9 Q. Was there anything in MDNR's rules that told
 10 the public how -- that determination would be made?
 11 A. That what determination?
 12 Q. How determinations were going to be made by
 13 MDNR.
 14 A. Not -- no.
 15 (Exhibit No. 16 was marked for
 16 identification.)
 17 BY MR. BONEBRAKE:
 18 Q. We're showing you what's been marked as
 19 Deposition Exhibit No. 16 for identification. Have you had a
 20 chance to take a look at the exhibit?
 21 A. Yes.
 22 Q. And did you have an opportunity in preparation
 23 for the deposition today to review any of the documents that
 24 comprise this exhibit?
 25 A. Yes.

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1 Q. And which of the documents?
 2 A. I believe I reviewed all of them: The letter
 3 written by DNR and the letter submitted to us by Independence
 4 Power & Light.
 5 Q. All right. And the MDNR letter you're
 6 referring to is the July 7th, 2009, letter to City of
 7 Independence?
 8 A. July 17th, yes.
 9 Q. Thank you. July 17th. And is that your
 10 signature on page 4 of MDNR's July 17th, 2009, letter?
 11 A. Yes.
 12 Q. And you were permit section chief at that
 13 time?
 14 A. Yes, that's correct.
 15 Q. And at that time, were you authorized to issue
 16 applicability determinations for MDNR?
 17 A. Yes.
 18 Q. And was there a technical person involved in
 19 connection for this applicability determination for DNR?
 20 A. Yes, Susan Heckenkamp.
 21 Q. And what was her involvement?
 22 A. She was the permit writer assigned to this
 23 project.
 24 Q. There are some notes on the back pages of this
 25 exhibit starting with Bates-stamp AM00024490. There's some

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1 handwritten notes.
 2 A. Yes.
 3 Q. Do you know whose handwriting that is?
 4 A. I'm not positive, but I would surmise that
 5 that is Susan Heckenkamp's writing.
 6 Q. But it's not your writing?
 7 A. No, it is not mine.
 8 Q. And in this applicability determination,
 9 Missouri Department of Natural Resources determined that no
 10 construction permit of any kind would be required for the
 11 placement of a portion of the boiler tubes and all the
 12 superheater dependent tubes on Independence Power & Light's
 13 Missouri city Unit No. 2; is that correct?
 14 A. That's correct.
 15 Q. And based upon your review of the -- the
 16 documents in preparation for the deposition, what was the
 17 scope of the project, then, that MDNR was addressing in this
 18 applicability determination?
 19 A. The scope of the project?
 20 Q. Right.
 21 A. Is the replacement of boiler tubes and
 22 superheater pendent tubes.
 23 Q. Do you know if superheaters are a component of
 24 a boiler?
 25 A. Yes.

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1 Q. And are they comprised of tubes?
 2 A. I would assume so.
 3 Q. Okay. Let's talk about the -- some text on
 4 page 2 of the MDNR letter.
 5 A. Okay.
 6 Q. And I'm looking at the text below table 1.
 7 A. Uh-huh.
 8 Q. And the first sentence reads, the air
 9 pollution control program concurs that the replacement of the
 10 boiler tubes and superheater pendent tubes appears to be
 11 routine repair. Do you see that?
 12 A. Yes.
 13 Q. What was the basis for the air pollution
 14 control program's conclusion?
 15 A. I would say based on the information
 16 Independence Power & Light gave to us in their documentation
 17 stating that it was routine. On the surface, we agreed with
 18 that. That's what that sentence refers to.
 19 Q. And did MDNR apply a process or factors or
 20 other means to assess whether or not the proposed project was
 21 routine?
 22 A. No, because as the next statement goes on, we
 23 chose to issue the no permit determination based on the
 24 analysis of the projected-actuals-to-actuals emissions, which
 25 is an allowable test under the PSD rules.

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1 Q. Well, as of July 17, 2009, did MDNR have a
 2 process or protocol for making routine determinations for
 3 purposes of the PSD applicability?
 4 A. I'm sorry, after July?
 5 Q. As of July 2009, which is the date of this
 6 letter.
 7 A. Did we have a process? No.
 8 Q. So was there -- was there a way for a source
 9 to determine as of 2009 whether a project would be considered
 10 routine by MDNR?
 11 A. The -- what we would tell installations is the
 12 same thing our staff uses is to review EPA guidance documents
 13 on what they consider routine and that we would review those
 14 same guidance documents.
 15 Q. So in connection with this particular
 16 applicability determination, when MDNR was saying that they
 17 concurred that the replacement of the boiler tubes and
 18 superheater pendent tubes appear to be routine repair, that
 19 would have been based upon MDNR's understanding of the US EPA
 20 RMRR guidance; is that correct?
 21 A. I can't speak for Susie -- Susan's inference
 22 on that statement, but I would give my opinion that she was
 23 basing it more on Independence Power & Light's submittal and
 24 their justification that it is routine based on the different
 25 factors they submitted and that is what that statement is

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1 agreeing with. Since she doesn't go on to explain the
 2 guidance documents from EPA, I would say she's relying more
 3 on Independence Power & Light's submittal.
 4 Q. The next page, page 3, in the middle paragraph
 5 starting with additionally.
 6 A. Uh-huh.
 7 Q. About two-thirds of the way down, there's a
 8 sentence that reads, according to additional information
 9 submitted by IPL, the replacement cost of the boiler tube
 10 project is estimated to be \$3,553,000 and complete
 11 replacement of MC2 is estimated to be 22,273,143. Do you see
 12 that?
 13 A. Yes.
 14 Q. Are those estimated -- strike that.
 15 Are those accurate cost numbers, to MDNR's
 16 knowledge?
 17 A. As far as I'm sure that is what Independence
 18 Power & Light submitted to us, so yes.
 19 Q. Back to page 2. After the sentence that I
 20 read before, there is a sentence below table 1 that reads,
 21 however, since there is no clear definition or policy on what
 22 should be considered routine maintenance and repair, the
 23 program is also relying on projected-actuals-to-actuals in
 24 information supplied by IPL showing this project is not a
 25 major modification. Do you see that?

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1 A. Yes.
 2 Q. What did you mean in this letter by the phrase
 3 "there is no clear definition or policy on what should be
 4 considered routine maintenance and repair?"
 5 A. Well, routine maintenance and repair is not
 6 defined. There's not a list in EPA regs, PSD regulations
 7 that list the list of routine maintenance and repair, so to
 8 be conservative, the program determined that no PSD was
 9 required due to the projected-actuals-to-actuals test.
 10 Q. To your knowledge, has -- has MDNR made an
 11 applicability determination based upon a conclusion that a
 12 project proposed was RMRR for purposes of PSD applicability?
 13 A. Could you restate that?
 14 Q. Sure. Let me try it again.
 15 A. Okay.
 16 Q. Has MDNR made a PSD non-applicability
 17 determination based upon a finding that the proposed change
 18 at an existing unit was routine maintenance repair and
 19 replacement?
 20 A. I would say most likely. We make a lot of
 21 permanent determinations and as everything in our realm,
 22 things evolve. And in recent years, the routine maintenance
 23 has become more important determination. So in past
 24 determinations, we most likely did state that and then some
 25 that we reviewed this morning, we used the term routine

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1 maintenance. We are more conservative now and want to make
 2 sure that we have a firm basis to issue a no permit required,
 3 so our sources are not subject to different interpretations
 4 from EPA as from us and that's why in this determination, we
 5 made the -- made the no permanent determination based on the
 6 projected-actuals-to-actuals.
 7 Q. As of -- as of 2009, had EPA been talking with
 8 MDNR about what does or does not constitute routine
 9 maintenance repair and replacement?
 10 A. Yes, we had -- we have had numerous
 11 conversations with them and I don't know when they started,
 12 but we did have conversations with them on this particular
 13 project, I do recall.
 14 Q. And did EPA ever provide training to MDNR
 15 regarding what constitutes routine maintenance repair and
 16 replacement?
 17 A. We requested EPA staff come and give the
 18 training to our permit section staff on routine maintenance
 19 and repair and the expectations and the core factors to
 20 review, so yes, we did receive some.
 21 Q. Did you say four factors to review?
 22 A. The four or five.
 23 Q. The WEPCo factors?
 24 A. Yes, yeah, nature, extent, cost, but I'm going
 25 to forget some.

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1 Q. Has -- has MDNR ever applied the WEPCo factors
 2 in a PSD applicability determination?
 3 A. Again, as I answered earlier, I would say most
 4 likely. We have attempted to make that determination,
 5 especially probably in older permit determinations. In more
 6 recent determinations, probably 2009 and to date, we are more
 7 conservative and involve EPA in those determinations, so we
 8 are speaking as one, EPA and MDNR.
 9 Q. Why did MDNR become more conservative in 2009?
 10 A. Well, I don't know if that's when it happened.
 11 I just -- I remember this project in particular. I was
 12 heavily involved with that. For several reasons, one, we do
 13 our best to interpret EPA's rules and as they're put into our
 14 state regs, but we are making a determination on federal
 15 rules as in our state rules. EPA can interpret that
 16 differently. We want to make sure our sources are covered
 17 and we are not giving a determination that could be
 18 interpreted differently from EPA.
 19 So because of a lot of facilities asking us to
 20 make these routine repair determinations, we ask for EPA
 21 guidance. That's one of the reasons we asked for training.
 22 And we involve them in some of these determinations. It
 23 became more frequent and we became more conservative kind of
 24 as a two-part because of some issues that EPA was enforcing
 25 on sources in Missouri and others, but also sources were

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1 asking for this determination more frequently in the -- in
 2 the last couple years.
 3 Q. So did MDNR change in 2009 or thereabouts the
 4 way in which it went about making RMRR determinations for PSD
 5 applicability?
 6 A. I would say we evolved. I'm not sure I would
 7 use the word changed. We made every effort to interpret the
 8 regs at the time of any determination made. Those
 9 determinations evolved with coordination with the EPA and
 10 with other states and that's where we are today.
 11 Q. Were you involved in the training that EPA
 12 provided on the RMRR?
 13 A. Yes.
 14 Q. And I'm sorry, I might have missed it, did you
 15 say when that occurred?
 16 A. I wasn't sure of the exact date. I'm guessing
 17 the time frame was around this possibly time frame, probably
 18 between 2008 and 2010. I don't know exactly.
 19 Q. Did -- did EPA ever indicate to MDNR that MDNR
 20 needed to change the way it was making routine determinations
 21 to bring MDNR in line with the positions it was taking in its
 22 enforcement cases?
 23 A. No, it wasn't presented that way. We were
 24 just trying to work as partners and to make sure that we were
 25 interpreting things the same way. There was no indication of

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1 a need to change, that I recall.
 2 Q. Are you aware of the interpretation of routine
 3 maintenance repair and replacement being espoused by the
 4 United States in the Ameren litigation?
 5 A. Yes.
 6 Q. And what's your understanding of that
 7 position?
 8 A. My limited understanding and it has been
 9 awhile since I've read the -- the violation, is that EPA is
 10 alleging that some of the actions that occurred were not
 11 routine and should have triggered PSD.
 12 Q. Are you aware of the basis for the US's
 13 assertion of non-routineness?
 14 A. I -- what do you mean by assertions?
 15 Q. Well, do you know the grounds on which they're
 16 claiming that the projects at issue in the Ameren case were
 17 not routine?
 18 A. I'm still not understanding. I mean, I --
 19 what I read in the determination is that the activities that
 20 occurred should have triggered a PSD permit and a PSD permit
 21 was not obtained. Was that?
 22 Q. Okay. My question, I guess, was a -- was a
 23 level of detail below that.
 24 A. Okay.
 25 Q. And my question is whether you were -- you

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1 were aware of the basis upon which the United States was
 2 claiming that the projects were not routine?
 3 MR. HANSON: That's -- I'm going to object.
 4 That's beyond the scope.
 5 THE WITNESS: Yeah, I -- I would have to look
 6 at the document again to -- it's been awhile since I read it,
 7 so I did not read it in preparation for this.
 8 (Exhibit No. 17 was marked for
 9 identification.)
 10 BY MR. BONEBRAKE:
 11 Q. All right. We are presenting for you for
 12 review Deposition Exhibit No. 17 for identification.
 13 A. Okay.
 14 MR. HANSON: If no one else is going to say
 15 it, I'm going to say that you can review the document.
 16 THE WITNESS: Oh, yeah, it's a -- it's a lot.
 17 I'm aware of what it is. I'll wait until you ask me a
 18 question.
 19 BY MR. BONEBRAKE:
 20 Q. Okay. Have you -- have you seen this exhibit
 21 before?
 22 A. Yes.
 23 Q. Okay. And -- and what is this exhibit?
 24 A. It is the report issued by EPA Region 7 for
 25 the Missouri air program in 2004. This would be the final

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1 report after EPA's review of the program in 2004.
 2 Q. And so this would have -- would -- strike
 3 that.
 4 Did this review include a US EPA review of the
 5 construction permitting program implemented by MDNR?
 6 A. Yes, that was one piece of the review.
 7 Q. So it would have included review of the
 8 implementation of the PSD program in Missouri?
 9 A. Again, the -- the EPA review does not touch in
 10 depth on the PSD permit program. They may choose to comment
 11 on it. The basis of the program review is to cover the minor
 12 source permitting program because EPA reviews our PSD permits
 13 at the time they are drafted and issued and they have that
 14 ability. So it is more a review of the minor source but they
 15 can touch on the PSD as well.
 16 Q. Well, I think as we discussed this morning,
 17 that the PSD permits are sent to US EPA on a regular basis
 18 but the PSD applicability determinations may or may not be?
 19 A. Right.
 20 Q. So the review period would be an opportunity
 21 for US EPA to review PSD non-applicability determinations;
 22 correct?
 23 A. Yes. I guess I would clarify that no permit
 24 required letters, I don't -- and that's why I answer the way
 25 I do is I view them as separate from the PSD permitting, so

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1 they're a separate piece, so that's why I answered that way
 2 earlier.
 3 Q. Okay. And let's see if we can kind of clarify
 4 the record on that point.
 5 A. Okay.
 6 Q. Did the 2004 review include a review of the no
 7 permit required letters issued by MDNR?
 8 A. They did -- my remembrance of the 2004 is they
 9 chose certain files at random to review and some of them
 10 could have been no permit required letters. I don't know if
 11 there's a list of the projects they reviewed in here. The
 12 projects are listed, but it's hard to tell what kind of
 13 projects they are.
 14 Q. What page are you looking at, by the way?
 15 A. AM00128956 and 57. They're the enforcement
 16 files. I apologize. I'm looking for a list of the permit
 17 files they reviewed.
 18 Q. And you're not seeing one?
 19 A. I'm not finding that list.
 20 Q. How about page AM00128720?
 21 MR. HANSON: Can you repeat that?
 22 MR. BONEBRAKE: Yes, 00128720.
 23 MR. HANSON: Oh, okay.
 24 BY MR. BONEBRAKE:
 25 Q. Is that what you were looking for?

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1 A. Yes.
 2 Q. Would these files that are indicated on -- on
 3 this page include no permit required determinations?
 4 A. They could. This list does not tell me that,
 5 and based on the title list of minor source reconstruction
 6 permit files, I would surmise that these are all permits. I
 7 would have to go -- there is a detail of each project and
 8 each company then, and I would have to just look through each
 9 one to determine if there was a permit determination as
 10 opposed to a permit. And just based on this chart, I would
 11 look at the ones where preconstruction waiver is zero because
 12 if a preconstruction waiver was issued, that would mean --
 13 indicate it was a permit, not a permit determination.
 14 Q. I see.
 15 A. So did you have a specific question?
 16 Q. I was interested in whether or not they were
 17 looking at those files, and I guess the answer is maybe?
 18 A. Yes.
 19 Q. Was the -- was the text of the program review
 20 report, setting aside what's in the appendices, but the
 21 narrative of the draft --
 22 A. Right.
 23 Q. -- is that drafted by EPA Region 7?
 24 A. Yes.
 25 Q. There is an attendance sheet at 00128710.

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1 MR. HANSON: Can you repeat that again?
 2 MR. BONEBRAKE: Yes, 00128710.
 3 THE WITNESS: Here we go, yes.
 4 BY MR. BONEBRAKE:
 5 Q. And you'll see -- I believe that's your name
 6 on the second -- second from the bottom; is that correct?
 7 A. Yes, that's correct.
 8 Q. And can you just describe for us what -- what
 9 is discussed at this entrance conference that you attended on
 10 June 7, 2004?
 11 A. My recollection is all the staff is present
 12 for the entrance conference. This is -- as we discussed
 13 earlier, this is how they used to do their program reviews.
 14 And the staff from EPA and the staff from the air program,
 15 all sections would be present. EPA would give an
 16 introduction on the intention of the program review.
 17 At this time, EPA then after the
 18 preconference, they took a couple of days to review files and
 19 then we came back for an exit conference. So the entrance
 20 conference from my recollection was just more of an
 21 introductory. This is what we're going to do while we're in
 22 your offices. EPA staff was in our office for a couple days,
 23 if not the entire week, reviewing files and interviewing
 24 staff on the program.
 25 Q. Okay. And I'd like to talk a little bit about

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1 the appendix that's found at 00128734. It's appendix 1014-4?

2 A. Yes.

3 Q. And the title of this appendix is new source

4 review, NSR, program review questionnaire and responses. And

5 in looking at the appendix, it looks like there's a number of

6 questions and then responses provided. Do you know if the

7 questions in this appendix were drafted by EPA and the

8 responses provided by MDNR?

9 A. Yes, that's correct.

10 Q. And do you know who provided the responses in

11 this questionnaire on behalf of MDNR?

12 A. If these are -- yes, these are the NSR

13 questions, so it would have been the permit section staff,

14 myself, and most likely Kendall Hale, the unit chief at the

15 time.

16 Q. Do you have a recollection of reviewing and

17 responding to the questionnaire?

18 A. Yes.

19 Q. You do?

20 A. Yes.

21 Q. On the -- on the cover sheet for the

22 appendix 4, at the bottom, it says completed by MDNR May

23 2004, and then in parens questionnaire does not address NSR

24 reform issues. Do you see that?

25 A. Yes.

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1 Q. What NSR reform issues are -- are being

2 referenced there?

3 A. The NSR reform rules, that's the rules issued

4 by EPA a couple years prior to that. I don't believe at this

5 time frame we were probably still going through the process

6 of adopting those into our state regulations. I think my

7 recollection is that's why we -- that comment is there.

8 Q. So -- so is that a reference to the rules

9 adopted by US EPA as a matter of federal law in late 2002

10 that contained an actual-to-projected emission test for all

11 major sources?

12 A. Yes, that's correct.

13 Q. I'd like to turn your attention to the third

14 page of this appendix, it's appendix page C1-2, Bates-stamp

15 00128736. And the heading for section 1.1, routine

16 maintenance repair and replacement, and were you involved in

17 providing the responses in this section on behalf of MDNR?

18 A. Yes, I would have been.

19 Q. The first question is -- has a reference to

20 the EPA letter to Henry Nickel of Hunton & Williams

21 concerning Detroit Edison and the WEPCo case on our

22 documents, and the question is whether you have knowledge and

23 there's an indication of -- of yes. Do you know if -- if the

24 2002 letter referenced to -- with respect to the Detroit

25 Edison letter was incorrect and whether that was, in fact,

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1 the letter from 2000?

2 A. I would have to look at that -- the letter. I

3 know there's a letter in EPA's database, the Detroit Edison,

4 but I can't speak to the date without it in front of me.

5 Q. Okay. The answer to number three is no, and

6 that question is: Do you have a formal protocol for making

7 RMRR exemption determinations; correct?

8 A. Yes.

9 Q. So does that mean that as of that time, you

10 were not following -- MDNR was not following the protocols

11 set forth in either the EPA letter to Henry Nickel regarding

12 Detroit Edison or the WEPCo case RMRR documents?

13 A. I would say that means that we don't have a

14 formal document, an MDNR document, that steps through this is

15 what you have to do. Our protocol in a lot of determinations

16 is to review guidance available, whether it's EPA guidance or

17 other documents from industry. That's how I would interpret

18 that question.

19 Q. Number -- No. 7 asks about the purpose

20 evaluation factor in RMRR exemption evaluation. And the

21 answer is yes, if emissions increase is due to the increase

22 in capacity. Can you explain what that answer means?

23 A. Let me read it all.

24 MR. HANSON: Just object that I think that

25 misstates the document.

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1 THE WITNESS: I don't think I can explain this

2 anymore than the statement here because I -- I don't remember

3 why we would have answered that.

4 BY MR. BONEBRAKE:

5 Q. All right. And Question No. 8 asks about the

6 frequency evaluation factors?

7 A. Yes.

8 Q. And the answer is: Some combination of these

9 histories. Does that mean that MDNR's consideration of

10 frequency including -- included the frequency of particular

11 kinds of projects in the same industry?

12 MR. HANSON: Objection, vague and ambiguous.

13 THE WITNESS: I would interpret the answer as

14 we do everything that's listed here. We consider the history

15 of the unit in question, the history of similar units at the

16 same facility, and history of similar units at other

17 facilities in the same industry, so.

18 BY MR. BONEBRAKE:

19 Q. Okay.

20 A. All of the above.

21 Q. So to determine frequency, you were looking at

22 histories of the unit, the plant and the industry?

23 A. Yes.

24 Q. And can you think of an applicability

25 determination by MDNR, in fact, where it applied that

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1 approach to determine frequency?
 2 A. Not specifically, no.
 3 Q. The answer to the Question No. 9 regarding
 4 cost is what percentage of the total cost is considered. Can
 5 you explain for us what that answer means?
 6 A. I would think that I would answer the question
 7 now regarding the cost evaluation factor and RMRR exemption
 8 evaluation, what procedure do you take cost into account.
 9 You would take the total cost as a reflection of the
 10 percentage cost, and I think that's what that statement is
 11 trying to get at.
 12 Q. The percentage of the total cost of what?
 13 A. If you were talking about the replacement of
 14 the insulation, for example, the entire boiler instead of a
 15 boiler tube or one or a hundred tubes. I think that's what
 16 this is saying. You take the percentage of the replacement
 17 in comparison to the total cost of if you had to replace the
 18 entire equipment.
 19 Q. I see. So kind of like a reconstruction
 20 approach where you're looking at the cost of a project versus
 21 the cost of replacing a unit?
 22 A. Right.
 23 Q. And I guess that has the value of making
 24 relative the cost out of any particular unit because the
 25 bigger the unit, the smaller a fixed cost would be; right?

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1 MR. HANSON: Objection, vague and ambiguous.
 2 THE WITNESS: I think it's important to look
 3 at the entire picture in addition to the small picture in
 4 relative to the large picture. I think that's what that is
 5 getting at.
 6 BY MR. BONEBRAKE:
 7 Q. I guess the percentage of cost provides
 8 relativity?
 9 A. Right, right.
 10 Q. And -- and do you know if the EPA letter to
 11 Henry Nickel of Hunton & Williams concerning Detroit Edison
 12 sent out -- set out a bunch of factors relating to RMRR
 13 determinations?
 14 A. I would have to look at it again, but I recall
 15 that it -- like the WEPCo letter and guidance does set out
 16 the factors that we've talked about, the nature and extent,
 17 the frequency, the cost.
 18 Q. Do you recall whether that letter sent out
 19 many more factors above the five set out in WEPCo?
 20 A. I don't recall.
 21 (Exhibit No. 18 was marked for
 22 identification.)
 23 BY MR. BONEBRAKE:
 24 Q. All right. I'll represent to you what has
 25 been marked as Exhibit No. 18 for identification. And I'll

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1 mention that what I'm most interested in in this document is
 2 found at AM0043316-MDNR, which is about three-quarters of the
 3 way through the document.
 4 A. Can you restate that number?
 5 Q. Sure, it's 3316.
 6 A. Okay.
 7 Q. And you're at the April 5, 2010, letter?
 8 A. Yes.
 9 Q. And did you have a chance to review that
 10 letter in preparation for your deposition today?
 11 A. I did.
 12 Q. Is that a letter from you on behalf of MDNR to
 13 Independence Power & Light?
 14 A. That's correct.
 15 Q. And that's your signature on page 2 of the
 16 April 5, 2010, letter?
 17 A. Yes.
 18 Q. I noted in looking through the permitting
 19 materials in your applicability determinations that there was
 20 an earlier determination issued by MDNR for Independence
 21 Power & Light on grounds other than RMRR with respect to the
 22 project that's addressed in the April 5, 2010, letter. Do
 23 you recall that?
 24 A. Yes.
 25 Q. And the grounds in that earlier determination

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1 for non-applicability was that emissions were not expected to
 2 increase. Do you recall that?
 3 A. Yes, I believe it was a
 4 projected-actual-to-actual, yes.
 5 Q. And in that earlier determination, MDNR had
 6 indicated that it was not making a conclusion or issuing a
 7 finding with respect to RMRR. Do you recall that as well?
 8 A. Yes.
 9 Q. And then after that determination, MDNR issues
 10 this April 5, 2010, letter asking -- strike that.
 11 After that earlier determination, MDNR issues
 12 this follow-up letter April 5, 2010, regarding RMRR; is that
 13 correct?
 14 A. Yes.
 15 Q. Why was MDNR issuing this follow-up letter in
 16 light of the earlier determination of non-applicability for
 17 the project that IPL had proposed?
 18 A. There was either a letter or a phone call from
 19 Independence Power & Light asking us. They wanted MDNR to
 20 make the determination in that previous letter that it was
 21 RMRR and so we were responding to that request. And in
 22 coordination with EPA, sent this letter basically restating
 23 the RMRR guidance and it's listed here and that if
 24 Independence Power & Light wished us to make a formal
 25 determination, that we with EPA would meet with them and

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1 discuss that at that time.
 2 Q. Did MDNR ever make a RMRR determination
 3 following its April 5, 2010, letter?
 4 A. No.
 5 Q. Okay. Did -- what was the reason that no
 6 decision was issued by MDNR?
 7 A. I don't believe we received anything from
 8 Independence Power & Light. If we did, it wasn't enough to
 9 make that determination and the project stopped at that
 10 point.
 11 Q. Did -- did EPA tell MDNR that all of the
 12 factors listed in MDNR's April 5th -- April 5, 2010, letter
 13 needed to be considered to make an RMRR determination?
 14 A. Yes.
 15 Q. Had MDNR ever set forth all of those factors
 16 in any prior applicability determination, guidance or rule
 17 advising sources of all of those factors to be used for
 18 making RMRR determinations?
 19 A. Not in this detail, no.
 20 Q. Do you know if the level of detail provided in
 21 MDNR's April 5, 2010, letter was set forth in the US EPA
 22 letter to DTE that was referenced in the 2004 questionnaire?
 23 A. The 2004 letter, I'm not sure. This language
 24 came from communication between MDNR and EPA on this issue.
 25 This is pretty much taken from an EPA letter to us on this

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1 question.
 2 Q. Okay. So EPA instructed you to use --
 3 instructed MDNR to use these factors?
 4 A. They gave us guidance with this and basically
 5 this is quoting from their letter. I think we state that,
 6 that we have been in communication with EPA Region 7 and then
 7 we list out what their communication is. And then invite
 8 Independence Power & Light to respond to these four points
 9 and then we would work with EPA to make a determination.
 10 Q. Had MDNR ever used all of the factors set
 11 forth in the April 5, 2010, letter to make an RMRR
 12 determination prior to April 5, 2010?
 13 A. Probably not in this detail, no.
 14 Q. The letter in the second paragraph refers to
 15 EPA's experience in recent litigation?
 16 A. Yes.
 17 Q. Do you know what litigation they're referring
 18 to there?
 19 A. As I stated, this italicized language is from
 20 EPA's letter, so this is EPA stating EPA's experience in
 21 recent litigation.
 22 Q. I see.
 23 A. So.
 24 Q. I see, so that is your signature on page 2 of
 25 the letter?

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1 A. That's correct.
 2 Q. So you cut and pasted from EPA's letter,
 3 italicized language and inserted it in your letter of
 4 April 5, 2010?
 5 A. Yes.
 6 Q. And did you have any discussion with -- with
 7 EPA about why all those factors needed to be reviewed for
 8 RMRR determinations at that time?
 9 A. The discussion was giving us guidance on
 10 routine maintenance and repair and using the -- these four
 11 factor analysis and they were helping us lay out the four
 12 factors in relation to Independence Power & Light. That's
 13 what the discussion was on how this applies to this project
 14 and how Independence Power & Light was asking us for a
 15 determination so we worked with EPA on how we could respond
 16 to Independence Power & Light and this was the initial
 17 response.
 18 Q. Are you aware of any court decisions regarding
 19 the validity of all the factors set forth in the April 5,
 20 2010, letter?
 21 A. There are several court decisions that I'm
 22 remembering and I can't remember the names. Other than the
 23 WEPCo that we already talked about, there's several others, I
 24 believe, that detailed court decisions from EPA using these
 25 factors.

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1 Q. And was there any discussion between MDNR and
 2 US EPA about the need for MDNR to use these factors to bring
 3 MDNR's RMRR determination process in conformity with the
 4 positions that EPA was taking in the NSR enforcement cases?
 5 MR. HANSON: Objection, assumes facts not in
 6 evidence.
 7 THE WITNESS: Our conversations on this topic
 8 with EPA was in regards to Independence Power & Light. We
 9 approached EPA and said we have a source that wants us to
 10 explicitly state what they are doing is routine maintenance
 11 and repair, and we needed guidance on whether what
 12 Independence Power & Light was doing could be defined as
 13 that. And this was the response from EPA which we forwarded
 14 to Independence Power & Light essentially asking Independence
 15 Power & Light to give us this much detail and then we would
 16 respond if it was RMRR and also work with EPA on that.
 17 BY MR. BONEBRAKE:
 18 Q. Would you agree that this letter sets forth a
 19 new expanded process for determining what is RMRR as compared
 20 to what MDNR had done previously?
 21 MR. HANSON: Objection, vague and ambiguous.
 22 THE WITNESS: I wouldn't phrase it as new and
 23 expanded. I would say clarifying and a little more detailed
 24 guidance than we had received in the past. As I mentioned
 25 earlier, our determinations -- our permanent determinations

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1 and everything we do kind of evolved over time based on rule
 2 changes, based on enforcement cases, and we want to give the
 3 sources in Missouri the best answer possible based on the
 4 information we have at the time they request.
 5 And at this time, we knew EPA was looking at
 6 these issues and were working with EPA so we could answer
 7 Independence Power & Light's questions and be assured that
 8 EPA would back us on that same statement.
 9 BY MR. BONEBRAKE:
 10 Q. Has MDNR applied the factors set forth in the
 11 April 5, 2010, letter for any other applicability
 12 determinations?
 13 A. Not that I can recall. I don't know that
 14 anyone has asked us recently since this to go into this much
 15 detail and to define it as routine maintenance.
 16 MR. BONEBRAKE: Let's take a short break. Off
 17 the record, please.
 18 VIDEOGRAPHER: We're off the record. It's
 19 3:01 p.m.
 20 (A break was held.)
 21 (Exhibit No. 19 was marked for
 22 identification.)
 23 VIDEOGRAPHER: We're back on the record at
 24 3:17 p.m.
 25

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1 BY MR. BONEBRAKE:
 2 Q. Representing to you an exhibit that's been
 3 marked No. 19 for identification. It's a two-page letter
 4 from MDNR.
 5 A. Okay. Yes.
 6 Q. Have you seen this letter before?
 7 A. I have.
 8 Q. Were you involved in the preparation of this
 9 letter?
 10 A. I was not.
 11 Q. Okay. This letter appears to be signed by
 12 James Cavanaugh. Do you recognize his signature on page 2?
 13 A. Yes, I do.
 14 Q. And was he director of the air pollution
 15 control program at MDNR as of February 8th, 2006?
 16 A. Yes, he was.
 17 Q. And is he with MDNR at this point in time?
 18 A. No, he is not.
 19 Q. Is he retired?
 20 A. Yes, he is.
 21 Q. We were earlier discussing this morning the
 22 fact that there was some reform rule revisions adopted by US
 23 EPA in late 2002, and I think you had indicated that at least
 24 some elements of those reform rules were incorporated by
 25 reference by -- by MDNR.

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1 And the first paragraph of this letter refers
 2 to a letter dated February 25th, 2005, from MDNR that
 3 requested the US EPA to amend Missouri state's implementation
 4 plan to reflect changes made to the construction permitting
 5 rules in Missouri. Do you see that?
 6 A. Yes.
 7 Q. And do you know if as of February 25th, 2005,
 8 MDNR had asked US EPA to incorporate into the Missouri SIP
 9 provisions added to the Missouri construction rules that
 10 incorporated by reference certain elements of 40 CFR 52.21?
 11 A. Yes. That's -- that's what this letter is in
 12 reference to, so yes.
 13 Q. The last sentence in the first paragraph
 14 states, this ruling vacated the clean unit exclusion,
 15 provides a cite and the pollution control project provision,
 16 against provides the cite, and remanded to EPA for further
 17 justification in the record-keeping provisions for the
 18 actual-to-projected-actual emission projections parens 40 CFR
 19 52.21 R6. Do you see that?
 20 A. Yes.
 21 Q. And when a remand occurs from a review in
 22 court in connection with an EPA rule, do you know if the rule
 23 remains in effect during the pendency of the remand?
 24 MR. HANSON: Objection, calls for a legal
 25 conclusion.

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1 THE WITNESS: The rule in Missouri state rules
 2 or federal rules?
 3 BY MR. BONEBRAKE:
 4 Q. Well, if you look at the letter for context,
 5 there's a -- there's a reference in that first paragraph to a
 6 decision by the US Court of Appeals for the District of
 7 Columbia --
 8 A. Yes.
 9 Q. -- in a June 25th -- June 24, 2005, ruling.
 10 Do you see that?
 11 A. Yes.
 12 Q. And it said the ruling vacated the clean unit
 13 exclusion and the pollution control project provision, but
 14 remanded to EPA for further justification the record-keeping
 15 provision.
 16 A. Right.
 17 Q. So my question for you is: When a remand
 18 occurs, like in this case on the record-keeping provisions,
 19 whether those record-keeping provisions of the federal rule
 20 remain in effect during the pendency of the remand?
 21 A. They can. And the remand usually states what
 22 can remain in effect and this letter doesn't go into that
 23 detail on this.
 24 Q. As a result of the DC circuit decision, did
 25 MDNR then ask EPA not to approve into the Missouri SIP the

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1 record-keeping provisions for the actual-to-projected-actual
 2 emission provisions?
 3 A. Yes, that's correct.
 4 Q. Do you know if sometime after February 28,
 5 2006, US EPA adopted a definition of quote-unquote reasonable
 6 possibility?
 7 A. Yes.
 8 Q. And do you know when US EPA adopted that
 9 definition?
 10 A. I would have to look at the document, but it's
 11 I believe 2012. It's more recent.
 12 Q. Is there a document that's in the binder that
 13 would refresh your recollection on that?
 14 A. I can't remember if it was in the binder or
 15 not. I've looked at the Fact Sheet of the rule, and I do
 16 know that's not in here, and I don't think I brought that.
 17 But yes, it is more recent than this that they proposed that
 18 reasonable possibility. Is that what you're asking?
 19 Q. Yes.
 20 A. Okay.
 21 Q. And has MDNR adopted EPA's definition of
 22 reasonable possibility into MDNR's construction permitting
 23 rules?
 24 A. Yes, I do believe that is in our rules.
 25 Q. Okay. Is there a requirement in the

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1 reasonable possibility rule that under some circumstances
 2 electric generating units submit emission projections to the
 3 -
 4 COURT REPORTER: I'm sorry, to the what?
 5 MR. HANSON: Objection.
 6 MR. BONEBRAKE: Permitting authority.
 7 MR. HANSON: Objection, calls for a legal
 8 conclusion.
 9 THE WITNESS: My understanding of the
 10 reasonable possibility rule is that it allows facilities to
 11 make that determination themselves without necessarily
 12 submitting it, but they must keep records of that under
 13 certain circumstances.
 14 BY MR. BONEBRAKE:
 15 Q. Has -- has MDNR received any emission
 16 projections from electric generating plants in Missouri under
 17 the reasonable possibility provision?
 18 A. I believe so. We have responded to some
 19 requests for determinations and I do think some of those were
 20 from utilities. I would have to look at our projects
 21 specifically, but we have analyzed that reasonable
 22 possibility projections.
 23 Q. I've got a couple of applicability
 24 determinations I think they refer to record-keeping, so maybe
 25 that will refresh your recollection.

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1 A. Okay.
 2 Q. And has -- has MDNR notified
 3 electric-generating plants in Missouri about when, if ever,
 4 they should submit emission projections to MDNR?
 5 A. Not to that much specificity. We have
 6 provided guidance to our stakeholders of the reform rules and
 7 how to do calculations of PSD applicability and general
 8 conversations, but your question was pretty specific to
 9 utility industry and I would say no, we have not issued that
 10 specific guidance just to the utility industry.
 11 Q. Okay.
 12 (Exhibit No. 20 was marked for
 13 identification.)
 14 BY MR. BONEBRAKE:
 15 Q. All right. We're presenting to you a
 16 deposition exhibit marked No. 20 for identification.
 17 A. Uh-huh.
 18 Q. And if you could take a look at that exhibit,
 19 please.
 20 A. Okay.
 21 Q. Have you had a chance to review the exhibit?
 22 A. Yes.
 23 Q. And did you have an opportunity to review any
 24 of the pages that comprised this exhibit in anticipation of
 25 this deposition?

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1 A. Yes.
 2 Q. And which of these pages did you review?
 3 A. I believe both the April 17th, 2009, letter
 4 from DNR to City Utilities as well as the September 19th,
 5 2007, letter from City Utilities to MDNR.
 6 Q. And in that City Utilities letter, was City
 7 Utilities requesting an applicability determination from MDNR
 8 regarding the replacement of economizer tubes on James Power
 9 Station Unit 5?
 10 A. Yes.
 11 Q. Okay. And with respect to the MDNR letter
 12 dated April 17, 2009, on page 2, there's a signature block?
 13 A. Yes.
 14 Q. Is that your signature?
 15 A. Yes.
 16 Q. And were you permit section chief as of the
 17 date of this letter?
 18 A. Yes, that's correct.
 19 Q. And in that capacity, were you authorized to
 20 issue applicability determinations on behalf of MDNR?
 21 A. Yes.
 22 Q. And was Susan Heckenkamp the engineer at MDNR
 23 assigned to this applicability determination?
 24 A. Yes, that's correct.
 25 Q. And are her hours spent on this project listed

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1 on a construction permit fees worksheet?
 2 A. That's correct.
 3 Q. Is the -- strike that.
 4 As of April 21st, 2009, was the James River
 5 Power Station a major source?
 6 A. Yes.
 7 Q. So it was potentially subject to PSD
 8 permitting if it performed a modification that triggered PSD;
 9 correct?
 10 A. That's correct.
 11 Q. And the April 17, 2009, MDNR letter determined
 12 that no construction permit of any kind was required with
 13 respect to the City Utilities' proposal to replace economizer
 14 tubes on James Power Station Unit 5; correct?
 15 A. That's correct.
 16 Q. In looking at paragraph 2 of your April 17,
 17 2009, letter, was it correct that the economizer tube
 18 replacement was intended to increase the heat exchange area
 19 of the boiler?
 20 A. Yes, that is the statement.
 21 Q. And would that increase in the heat exchange
 22 area increase the efficiency of the boiler?
 23 MR. HANSON: Objection, lack of foundation.
 24 THE WITNESS: As it is stated, it is expected
 25 to help the boiler be more efficient, yes.

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1 BY MR. BONEBRAKE:
 2 Q. And when a boiler is more efficient, does that
 3 mean that the boiler generates the same amount of electricity
 4 by combusting less fuel?
 5 MR. HANSON: Objection, lack of foundation.
 6 THE WITNESS: Yes, that is one conclusion.
 7 BY MR. BONEBRAKE:
 8 Q. And does MDNR agree that that result is a
 9 favorable outcome that it should support?
 10 MR. HANSON: Objection, vague and ambiguous.
 11 THE WITNESS: I don't know that we need to
 12 decide whether we support it or not. We just need to
 13 determine if permits are required, which then we went down in
 14 the next paragraph and requested City Utilities keep records
 15 to support their determination.
 16 BY MR. BONEBRAKE:
 17 Q. In the -- in the next paragraph as you say,
 18 the first sentence indicates that an emission increase is not
 19 expected to result from the project proposed by City
 20 Utilities; is that correct?
 21 A. Yes.
 22 Q. And that is MDNR's determination regarding the
 23 project proposed by City Utilities, correct?
 24 A. It is reiterating what City Utilities provided
 25 to us, that they did not anticipate any emissions increase,

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1 but they could not provide calculations so then we gave the
 2 guidance that they need to maintain the records outlined in
 3 the federal regs to support that conclusion.
 4 Q. But MDNR concurred with City Utilities, did it
 5 not, that emission increase would not be expected?
 6 A. We reiterated what they provided to us, so we
 7 took the determination and justification from the source and
 8 agreed that was a reasonable analysis and in order to support
 9 that, requested them to keep records.
 10 Q. Because MDNR has an independent obligation to
 11 apply and enforce its construction permitting rules; correct?
 12 A. Yes.
 13 Q. Now you mentioned the -- the obligation to
 14 maintain records, which is also referenced in that same
 15 paragraph?
 16 A. Yes.
 17 Q. And you noted that that was pursuant to 40 CFR
 18 52.21; is that correct?
 19 A. That's correct.
 20 Q. And MDNR wanted the source to maintain annual
 21 emissions information for five years after the change; is
 22 that right?
 23 A. Yes, that's correct.
 24 Q. What is the relevancy of annual actual
 25 emissions after a project?

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1 MR. HANSON: Objection, vague and ambiguous.
 2 THE WITNESS: The relevancy? We were -- the
 3 need for the records is to demonstrate that their actual
 4 emissions after the project, which would be the projected
 5 actual minus the actual emissions they were, there was no net
 6 increase and that's why they need to confirm that the actual
 7 emissions after the project were what they proposed them to
 8 be or projected them to be.
 9 BY MR. BONEBRAKE:
 10 Q. Are you familiar with the Sixth Circuit
 11 decision in the NSM -- NSR enforcement action brought against
 12 Detroit Edison by the United States?
 13 A. Vaguely, yes.
 14 Q. Has MDNR made a decision regarding the
 15 significance of post-project actual emissions under that
 16 decision?
 17 A. Based on the Detroit Edison decision?
 18 MR. HANSON: Objection, lack of foundation.
 19 THE WITNESS: I would say our determinations
 20 would be based more on EPA guidance and if the EPA guidance
 21 referenced those case, that's how that Detroit Edison case
 22 would come into play. So your question, again, is that did
 23 we rely on the Detroit Edison? Would you restate that?
 24 BY MR. BONEBRAKE:
 25 Q. If MDNR as an independent state agency had

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1 made any determination about the significance of the Detroit
 2 Edison decision on the relevancy of post-project emissions?
 3 MR. HANSON: Same objection.
 4 THE WITNESS: No. I mean, specifically to
 5 that case, no, we would not have made any determination.
 6 BY MR. BONEBRAKE:
 7 Q. Has there been any discussion between MDNR and
 8 US EPA about the Sixth Circuit decision in the Detroit Edison
 9 case?
 10 A. Not that I've been privy to. There may be
 11 some discussions from permit staff and EPA staff. They talk
 12 a lot, so I'm not sure if that came up in conversation or
 13 not, so.
 14 Q. Do you know if the Sixth Circuit decision
 15 allowed sources to hold their actual emissions post-project
 16 to projected levels in order to avoid NSR review?
 17 MR. HANSON: Objection, calls for a legal
 18 conclusion.
 19 THE WITNESS: I would have to look at the
 20 court case.
 21 BY MR. BONEBRAKE:
 22 Q. I'm sorry?
 23 A. I would have to look at the court case to
 24 confirm that, but.
 25 Q. You have no recollection?

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1 A. I don't remember.
 2 MR. HANSON: Objection, calls for a legal
 3 conclusion.
 4 BY MR. BONEBRAKE:
 5 Q. And MDNR has not been asked to offer a view on
 6 that question by any source in Missouri?
 7 A. Not that I recall specific to that. Sources
 8 ask us our opinion on what their projects are, so I don't --
 9 I don't remember any specific request on a source on that.
 10 Q. Well, let me change my question, make sure we
 11 have a common understanding.
 12 A. Okay.
 13 Q. Has any source in Missouri asked for Missouri
 14 natural department -- MDNR's view on whether the source can
 15 hold its actual post-project emissions consistent with its
 16 projected emissions in order to avoid NSR review?
 17 A. So you're asking if the source -- if a source
 18 in question has asked us if they can hold steady the
 19 emissions and still meet the projected-actual-to-actual test
 20 by holding their emissions steady?
 21 Q. Below significance.
 22 A. Below significance thresholds? That
 23 particular statement, I'm not sure. I mean, we've had --
 24 we would have conversations with sources on this
 25 actual-to-projected-actual test. If a source would ask us if

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1 they can, you know, keep their actual emissions steady for
 2 two years or five years and then increase after five years
 3 and that trigger PSD, that -- that's trying to recall
 4 specific conversations with multiple sources and I can't
 5 speak to that specifically.
 6 Q. In the April 17, 2009, applicability
 7 determination by MDNR, did it determine that no emission
 8 increase would be expected based upon the actual-to-projected
 9 emission test?
 10 A. Based on the way the letter is written, we
 11 were saying there was no emission increase and that is what
 12 City Utilities was presenting. They said this project should
 13 not increase emissions. Our technical staff concurred with
 14 that possibility and proposal and then restated that emission
 15 increase is not expected. However, in lieu of calculations,
 16 that we did not have and City Utilities cannot provide,
 17 that's when we asked for the maintaining of records. I don't
 18 know if I answered your question, but that's what the letter
 19 and analysis was.
 20 Q. Well, my question was: Did MDNR consider the
 21 assertions by City Utilities regarding emission changes or
 22 not through an actual-to-projected or some other emission
 23 test approach?
 24 MR. HANSON: Objection, asked and answered.
 25 THE WITNESS: There's -- there's nothing in

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1 this project file that indicates a detailed calculation was
 2 done, so again, we relied on the source's projection that
 3 emissions would not increase and then in order to ensure
 4 compliance, requested the source keep the records of
 5 actual-to-projected-actual.
 6 BY MR. BONEBRAKE:
 7 Q. Okay.
 8 A. There's a conservative approach to agreeing
 9 with their no emissions increase.
 10 VIDEOGRAPHER: I'm going to have to go off the
 11 record for just a second. Off the record at 3:39.
 12 (An off-the-record discussion was held.)
 13 VIDEOGRAPHER: Okay. We're back on the record
 14 at 3:40 p.m.
 15 BY MR. BONEBRAKE:
 16 Q. I'd like to talk a little bit more about an
 17 exhibit that we talked briefly about earlier this afternoon
 18 and it's Exhibit 16.
 19 A. Okay.
 20 Q. All right. And we earlier were talking some
 21 about the text on the top of page 2 and I'd like to turn to
 22 page 2 again and look at some slightly different text. The
 23 second full paragraph on page 2 of this letter refers to IPL
 24 performing an emission analysis based on
 25 projected-actuals-to-actuals. Do you see that?

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1 A. Yes.

2 Q. And this was July of -- of 2009. Were you

3 aware -- are you aware of any use by MDNR of the

4 actual-to-projected-actual test under 40 CFR 52.21 prior to

5 July 2009?

6 MR. HANSON: Objection, vague and ambiguous.

7 THE WITNESS: I -- I don't know about the date

8 prior to 2009. We did multiple permit determinations in a

9 month, so it is possible. I can't answer that.

10 BY MR. BONEBRAKE:

11 Q. Is it correct that under the

12 actual-to-projected-actual test under 40 CFR 52.21, the

13 baseline emission periods is a five year period immediately

14 proceeding the proposed project?

15 A. That's correct.

16 Q. And is it also correct that the source could

17 elect to use any 24 consecutive months during that five-year

18 period as a baseline period?

19 MR. HANSON: Objection, calls for a legal

20 conclusion.

21 THE WITNESS: It is my understanding that that

22 is allowed, yes.

23 BY MR. BONEBRAKE:

24 Q. And again, this is a 30(b)(6) deposition of

25 MDNR, so I'm asking is that MDNR's position?

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1 A. Yes.

2 Q. Thank you.

3 Q. And in this case, again, was IPL's emission

4 projection approach satisfactory to MDNR?

5 A. The emission approach laid out on page 2?

6 Q. Correct.

7 A. Yes.

8 Q. And based upon your review of the exhibit and

9 your preparation for the deposition, do you know if the unit

10 at issue in this applicability determination by MDNR was

11 experiencing outages or derates as a result of the tubes

12 which were proposed to be replaced?

13 A. I do not recall if they got into that much

14 detail. They state in their letter that they're merely

15 performing preventative maintenance to ensure operations can

16 be maintained, so I am not aware of the outages were a part

17 of this -- part of the reason for the equipment, if that's

18 what you're asking.

19 Q. Part of the reason why the proposal was made

20 to replace the equipment?

21 A. Right.

22 Q. And did MDNR ask the company whether or not

23 the tubes which were proposed to replace -- to be replaced

24 had caused any outages or derates?

25 A. That conversation may have occurred during the

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1 project review. It is not documented in writing here, so it

2 is not in the file so I cannot state that that occurred

3 conclusively.

4 Q. But as you noted, the file does not indicate

5 that that conversation occurred; correct?

6 A. That's correct.

7 Q. Has -- has MDNR, in fact, considered the

8 outage history of a boiler component in connection with any

9 of the applicability determinations that it's made for

10 electric generating units?

11 A. Considered it? I would say that wouldn't

12 necessarily be a part of the applicability determination. We

13 would review the equipment being replaced, not necessarily

14 the need for the equipment replacement, so it may come up in

15 the conversation and in the project review in the many

16 applicability determinations we do, but I can't state how

17 many or when we had those conversations.

18 Q. So it -- it wouldn't be a standard approach by

19 MDNR to require information about whether a particular

20 component had caused outages as part of its applicability

21 determination process?

22 A. That wouldn't be necessary to make our

23 determination on whether a permit is required.

24 Q. Okay. So -- so component outage information

25 is -- is not relevant to MDNR's applicability determinations?

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1 A. Most of the time, no, it would not be.

2 Q. Are you -- are you familiar with the -- the

3 emission test that the United States has proposed to be the

4 applicable emission test in the Ameren lawsuit?

5 MR. HANSON: Objection, vague and ambiguous.

6 THE WITNESS: The -- I'm not sure of the

7 question. The emissions test in the lawsuit? No, I would --

8 the emissions test in a permit review or I'm not sure what

9 you're asking.

10 BY MR. BONEBRAKE:

11 Q. The question I'm asking is if you're aware of

12 the emission test that the United States asserts in the

13 lawsuit should be used to determine whether or not the

14 projects at issue in that case triggered PSD?

15 MR. HANSON: Objection, vague and ambiguous.

16 THE WITNESS: I would with any permit

17 determination follow EPA's guidance on what is the

18 appropriate emissions test, so I don't remember the exact

19 wording in the lawsuit, so we would just follow EPA's

20 guidance on any emissions test.

21 (Exhibit No. 21 was marked for

22 identification.)

23 BY MR. BONEBRAKE:

24 Q. All right. We're presenting to you a

25 multi-page document that's been marked as Deposition Exhibit

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1 No. 21 for identification.
 2 A. Okay.
 3 Q. If you could take a look at that, please.
 4 Have you had a chance to take a look at this exhibit?
 5 A. Yes.
 6 Q. And did you have a chance to review any of the
 7 pages comprising this exhibit in preparation for the
 8 deposition today?
 9 A. Yes. I have glanced through and reviewed
 10 briefly the permit that is contained in here.
 11 Q. And by "permit," what pages are you referring
 12 to?
 13 A. The cover letter of October 5th, 2010, letter,
 14 DNR letter and then the following pages start the official
 15 permit to construct to Arthur Daniels Midland.
 16 Q. Okay. And does the official permit to
 17 construct extend through page -- page 29, which is
 18 Bates-stamp No. AM00442891?
 19 A. That is the permit, that's correct, and then
 20 there's an attachment following that that would also be
 21 considered part of the permit that is the ambient air quality
 22 and analysis.
 23 Q. Okay. And that takes us through
 24 Bates-stamp -- that attachment takes us through Bates-stamp
 25 No. 2896; correct?

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1 A. That's correct.
 2 Q. And after that is a letter to MDNR -- excuse
 3 me, from MDNR to ADM dated March 27, 2007. Is that also a
 4 part of the permit?
 5 A. That would be prior to the permit issuance.
 6 It's 2007. So this is a discussion of their preconstruction
 7 monitoring, I believe, or the modeling analysis. Yeah, this
 8 is for -- this is prior to their permit.
 9 Q. Okay. So what do -- what portion of this
 10 exhibit, then, do you view to be the PSD permit?
 11 A. Well, including the cover letter, which is
 12 00442862 --
 13 Q. Uh-huh.
 14 A. -- and then through the ambient air quality
 15 analysis, which ends the 00442896.
 16 Q. Okay. Thank you. The first page of this
 17 exhibit was a -- looked like a file cover as -- as produced
 18 to us?
 19 A. Yes.
 20 Q. Does that look like the file in which the PSD
 21 permit and related materials were contained?
 22 A. Yes, this is a copy of our file folder from
 23 the file room, it looks like.
 24 Q. And are separate files kept for each PSD
 25 permit issued?

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1 A. We keep files for each project number, so yes.
 2 Q. Okay. So consistent with what we said before,
 3 for a given source for what you said before, for a given
 4 source, you will keep a separate file for each -- each
 5 project, whether that be a permit or applicability
 6 determination or some other separate action?
 7 A. That's correct.
 8 Q. Okay. With respect to the -- the PSD permit
 9 in turning to the second page of the exhibit, there's a
 10 letter dated October 5, 2010, from Kendall Hale to -- to ADM.
 11 A. Yes.
 12 Q. And I think you mentioned Kendall this morning
 13 as well. As of the date of this letter, he was the new
 14 source review unit chief?
 15 A. That's correct.
 16 Q. And that letter identifies Michael Mittermeyer
 17 as the contact person?
 18 A. That's correct.
 19 Q. So would Michael Mittermeyer have been
 20 involved in this permitting process?
 21 A. Yes, he would have been the permit reviewer
 22 for this project.
 23 Q. We turn to page 29 of the PSD permit which is
 24 00442891.
 25 A. Yes.

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1 Q. Does that appear to you to be Michael
 2 Mittermeyer's signature?
 3 A. Yes, it does.
 4 Q. And did Michael Mittermeyer draft the text of
 5 the PSD permit?
 6 A. Yes.
 7 Q. And did he do the emission calculations that
 8 are reflected in the PSD permit?
 9 A. Yes.
 10 Q. And what was his position at the time of this
 11 PSD permit?
 12 A. He was an environmental engineer in the
 13 construction permit for new source review unit.
 14 Q. And can you tell from this information or do
 15 you otherwise know what level he was? I think you mentioned
 16 this morning there were Is, IIs, and IIIs?
 17 A. At this time, I'm not sure because he was an
 18 engineer II and then passed his PE and became an engineer
 19 III. I don't recall if this was -- if he was a PE at this
 20 time or not.
 21 Q. And do you know when Mr. Meyer -- Mr.
 22 Mittermeyer started with MDNR?
 23 A. I don't know the dates of his start time. He
 24 worked for the program about five years and has been gone
 25 about two, so he had been with the program several years by

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1 this time, based on my estimations.
 2 Q. Okay. And do you know where Mr. Mittermeyer
 3 currently works?
 4 A. He's with a consulting firm in St. Louis, but
 5 I don't remember which one.
 6 Q. Okay. And do you know why he left MDNR?
 7 A. His wife wanted to live somewhere besides Jeff
 8 City.
 9 Q. I'll reserve comment on that.
 10 A. Yeah.
 11 Q. Based upon your review of this exhibit and
 12 your – and your preparation for the deposition, do you know
 13 what project ADM was proposing that is the subject of the
 14 permitting action? And if it helps, there's a project
 15 description on page 14.
 16 A. Yes, that's what I rely on because I review a
 17 lot of projects, especially for this deposition. They were
 18 expanding their oil extraction plant and this is the facility
 19 in Mexico, Missouri.
 20 Q. Mexico, Missouri?
 21 A. Yes, sorry.
 22 Q. I was wondering if your jurisdiction was
 23 reaching – reaching –
 24 A. No, Mexico, Missouri.
 25 Q. You said they were expanding their plant?

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1 A. Yes.
 2 Q. And so I don't forget, the second page of the
 3 permit with the title permit to construct --
 4 A. Yes.
 5 Q. -- and it's 863, there's a signature line for
 6 the director. Does that appear to you to be the signature of
 7 James Cavanaugh?
 8 A. That's correct.
 9 Q. And I think you indicated before, but PSD
 10 permits for issuance needed to be signed by the director; is
 11 that -- is that correct?
 12 A. All permits are signed by the director, yes.
 13 Q. And other than issuing the cover letter of
 14 October 5, 2010, to ADM with the PSD permit, was Kendall Hale
 15 involved in the permitting action?
 16 A. Yes, he would have been involved as the new
 17 source reviewer construction permit unit chief, especially on
 18 a PSD review. He would have been involved in the analysis
 19 and assisting and supervising Mike Mittermeyer's review.
 20 Q. Do you know if he was involved in preparation
 21 of the narrative of the PSD permit?
 22 A. No, Mike would have drafted that narrative.
 23 Kendall might have -- would have reviewed it and may have
 24 offered comments, but it would have been Mike's draft.
 25 Q. And what about the emission calculations in

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1 the permit, would Kendall have been involved in those?
 2 A. Typically, the project engineer does all the
 3 calculations. If they have questions or need assistance or
 4 guidance, they frequently ask their co-workers and their
 5 supervisor, so he may have been -- he was involved in, you
 6 know, provided oversight and any guidance that Mike needed,
 7 but it would have been Mike's draft.
 8 Q. And were you personally involved in this
 9 permitting action?
 10 A. I was aware of it as I am of most PSD projects
 11 because they are major permits, but most of the technical
 12 review and oversight would have been done by Mike and/or
 13 Kendall.
 14 Q. Now, as you mentioned, there's -- there's a
 15 document late in this exhibit that was dated I think in 2007.
 16 A. Yes.
 17 Q. And the PSD permit is issued in October, 2010?
 18 A. Yes.
 19 Q. So I guess this permit took -- took more than
 20 two and a half years to -- to issue; is that correct?
 21 A. Based on the project number of the application
 22 it was received in May of 2007, that's correct, and issued in
 23 October of 2000 -- well, October, 2010, yes.
 24 Q. Now, the -- this PSD permit not only applied
 25 PSD requirements with respect to certain pollutants but also

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1 made non-applicability determinations with respect to others;
 2 correct?
 3 A. Yes.
 4 Q. And I'd like to turn your attention to table
 5 11. It's on page 27 of the internal numbering on the PSD
 6 permit.
 7 A. Okay.
 8 Q. And the heading is emission summary tons per
 9 year.
 10 A. Okay.
 11 Q. And I'd like to ask some questions about the
 12 columns that are in this table.
 13 A. Okay.
 14 Q. The first question I have for you is the
 15 required -- excuse me, regulatory De Minimus levels in
 16 columns second from the right, are those the PSD significance
 17 thresholds?
 18 A. Yes.
 19 Q. And the next column is existing potential
 20 emissions. Is that the potential emissions of the entire
 21 source?
 22 A. The -- yes, it would be the potential
 23 emissions of the entire installation prior to this project.
 24 Q. So the installation at issue in this
 25 permitting action was a major source?

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1 A. That's correct.
 2 Q. And the next column is existing actual
 3 emissions parens 2009 EIQ. What's the EIQ?
 4 A. I think it's 2008, unless it's --
 5 Q. Oh, I'm sorry, I think you're right?
 6 A. The shading affects it. The EIQ is -- stands
 7 for emission inventory questionnaire. It is the
 8 questionnaire that every polluted -- pollutant source in
 9 Missouri that is required to, anyway, submits to us annually
 10 or every three years. The smaller sources don't have to do
 11 it annually. And basically, they report their annual
 12 emissions by this questionnaire and we maintain that document
 13 and that is where these numbers are from.
 14 Q. Are those -- are those relevant to the PSD
 15 applicability assessment?
 16 A. The actual emissions, it's -- I'd have to read
 17 the emission factors. Existing actual emissions of the
 18 installation were taken from the 2008 EIQ. Baseline actual
 19 emissions were calculated using the emission factors
 20 described above. So it's relevant to the facility and their
 21 actual emissions but it does not look like the 2008 actual
 22 emissions were used in this analysis. They used the baseline
 23 of 2005 to 2006.
 24 Q. Okay. And the baseline actual emissions as
 25 you say from 2005 and 2006 were calculated?

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1 A. Yes.
 2 Q. And Mr. Mittermeyer would have made those
 3 calculations?
 4 A. That's correct.
 5 Q. There are also projected actual emissions,
 6 that's the next column over?
 7 A. Right.
 8 Q. And do you know the methodology by which those
 9 emissions were projected?
 10 A. According to the permit, it was -- they were
 11 calculated using emission factors and projected throughputs
 12 provided by ADM.
 13 Q. And the next column is could have accommodated
 14 emissions?
 15 A. Yes.
 16 Q. Could you explain what could have accommodated
 17 emissions means?
 18 A. I would hope that he would have explained that
 19 because I'm not.
 20 Q. Maybe if we go to page 14, that might provide
 21 some help.
 22 A. Okay.
 23 Q. It's the bottom of page 14 in the PSD internal
 24 numbering.
 25 A. Okay. He explains this in the section

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1 entitled prevention of significant deterioration PSD
 2 applicability that ADM chose to exclude PM and PM ton
 3 emissions, that the certain equipment could have accommodated
 4 prior to the expansion.
 5 Q. And then it goes on to say ADM calculated
 6 these emissions by determining the highest monthly crush rate
 7 during the baseline period and extrapolating the rate to an
 8 annual rate. Do you see that?
 9 A. That's correct.
 10 Q. And was that calculation, then, by ADM
 11 accepted by MDNR and used in the capable of accommodating
 12 column in table 11?
 13 A. Yes.
 14 Q. And does the term "could have accommodated"
 15 have a particular regulatory meaning within 40 CFR 52.21?
 16 A. Yes, his explanation is this increase over the
 17 baseline emissions was subtracted as allowed by 52.21, so
 18 yes.
 19 Q. So Mr. Mittermeyer was subtracting from the
 20 projected actual emissions the amount that the unit could
 21 have accommodated?
 22 A. That's correct.
 23 Q. Well let's go to table 11 and maybe do a
 24 little math and make sure we understand this correctly. If
 25 we go to the row with -- with PM, we have baseline actual

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1 emissions of 77.14 tons?
 2 A. That's correct.
 3 Q. Projected actual emissions of 103.61 tons?
 4 A. Right.
 5 Q. And if we subtract the actual from the
 6 projected, we get 26.47; correct?
 7 A. Right.
 8 Q. Now that would be above the PSD significance
 9 threshold for PM; correct?
 10 A. That's correct.
 11 Q. So without an adjustment for what could have
 12 been accommodated for this particular proposed activity, ADM
 13 would have been subject to PSD for PM; correct?
 14 A. That's correct.
 15 Q. But MDNR went on to subtract 9.23 tons of
 16 emissions of -- PM emissions that could have been
 17 accommodated from the 26.47 to yield 17.24 tons; is that
 18 correct?
 19 A. That's correct.
 20 Q. And so the net result after subtracting out
 21 the could have accommodated PM emissions was that PSD was not
 22 triggered --
 23 A. That's correct.
 24 Q. -- for PM; is that correct?
 25 A. That's correct.

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1 Q. Do you know if there were any communications
 2 between US EPA and MDNR regarding the ADM permitting action
 3 reflected in this permit in advance of permit issuance?
 4 A. Specific conversations, I can't detail, but
 5 based on my experience in PSD permits, there's always
 6 communication between us and EPA during a PSD application
 7 process.
 8 Q. And a public notice version of the PSD permit
 9 would have been sent to US EPA --
 10 A. That's correct.
 11 Q. -- before it went final; correct?
 12 A. That's correct.
 13 Q. And did US EPA provide any comments including
 14 any objections back to MDNR regarding the PSD permit issued
 15 to ADM?
 16 A. Without the file in property of me, I would
 17 say most likely yes, because again, most PSD permit
 18 applications do receive comments instead of -- we have that
 19 in here.
 20 Q. So you're not aware of any -- any comments?
 21 A. Well, I said I would speculate that there were
 22 comments, I just don't see them here because most PSD
 23 projects we did receive comments from EPA, but.
 24 Q. And if we had specific questions about how,
 25 for instance, the 9.23 tons of could have accommodated PM

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1 emissions was determined --
 2 A. Uh-huh.
 3 Q. -- who would -- who would you ask that
 4 question of at this point?
 5 A. I would look at the file review since Mike
 6 Mittermeyer is not there anymore, and see if there were
 7 calculations in the file. Also, since it was provided by
 8 ADM, there were most likely calculations in the file from ADM
 9 supporting that nine tons.
 10 Q. Oh, by the way, one related question, I
 11 believe there was a spreadsheet or spreadsheets that
 12 Mr. Mittermeyer prepared with respect to this permit; is that
 13 correct?
 14 A. Yes, I would say.
 15 Q. Would it have detailed his calculations?
 16 A. That's correct.
 17 (Exhibit No. 22 was marked for
 18 identification.)
 19 BY MR. BONEBRAKE:
 20 Q. I'm showing you what's been marked as
 21 Deposition Exhibit No. 22 for identification. Have you had a
 22 chance to take look at this exhibit?
 23 A. Yes.
 24 Q. And have you had a chance to take a look at
 25 this -- this permit in preparation for the deposition today?

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1 A. I did.
 2 Q. And what is the document that comprises this
 3 permit?
 4 A. This is a permit issued to Dogwood Energy. It
 5 is what we would consider a De Minimus permit under our
 6 construction permit rules, section 5.
 7 Q. And what do you mean by De Minimus permit?
 8 A. It is a permit to an existing major source in
 9 this situation, but it did, for various reasons, was not a
 10 PSD permit. The De Minimus permit indicates that the
 11 emissions of the project with conditions or controls were
 12 below the regulatory De Minimus levels, which are the same as
 13 the federal significance levels.
 14 Q. Okay. So the Dogwood Energy facility at issue
 15 in this permit was a major source?
 16 A. Yes.
 17 Q. And there's a determination of PSD
 18 non-applicability that in this minor De Minimus permit; is
 19 that correct?
 20 A. Yes.
 21 Q. And what was the -- the change to the existing
 22 stationary source that was proposed and permitted in this De
 23 Minimus permit?
 24 A. This was an upgrade to some existing combined
 25 cycle turbines, combustion turbines that as related in the

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1 project description on page 9 of the permit, accommodation of
 2 hardware and control logic changes intended to increase
 3 efficiency and output of the gas and steam turbine
 4 generators.
 5 Q. On the first page of this exhibit, there's a
 6 signature block for the director of the Department of Natural
 7 Resources. And do you recognize that to be James Cavanaugh's
 8 signature?
 9 A. That's correct.
 10 Q. And so does this permit to be the final and
 11 effective De Minimus permit for Dogwood?
 12 A. That's correct.
 13 Q. And on the second to last page, there is a
 14 staff recommendation with Emily Wilber's name?
 15 A. Yes, that's correct.
 16 Q. And is she an environmental engineer with
 17 MDNR?
 18 A. That's correct.
 19 Q. And what level engineer was she at the time
 20 that she signed this?
 21 A. In 2009, Emily would have been an
 22 environmental engineer III with a PE license.
 23 Q. And is she still with MDNR?
 24 A. She is. She no longer works in the permit
 25 section. She's in the air programs planning section. She is

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1 our SIP, state implementation plan, unit chief in our
 2 planning section.
 3 Q. And when did she start with MDNR?
 4 A. She has worked for the Department for about 12
 5 years, so that would be about 2001.
 6 Q. Now looking at page 9 of the permit.
 7 A. Uh-huh.
 8 Q. The upgrade that was proposed resulted in an
 9 overall power output increase in plant of approximately 29
 10 megawatts; is that correct?
 11 A. That's correct.
 12 Q. And then it goes on to note that these
 13 upgrades have resulted in increase in potential emissions and
 14 they're considered modifications under construction permits?
 15 A. That's correct.
 16 Q. On page 10, did MDNR use the
 17 actual-to-projected-actual emission test to determine PSD
 18 applicability for the project at issue in this permit?
 19 A. Yes.
 20 Q. And did that include application of the could
 21 have accommodated provision of the actual-to-projected-actual
 22 test?
 23 A. Yes, it did.
 24 Q. In the third paragraph, the last sentence
 25 reads, therefore the maximum future actual emissions will be

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1 the same as the potential emissions found in Permit
 2 No. 0899-030.
 3 A. That's correct.
 4 Q. Can you explain for us why that would be the
 5 case, that the maximum future actual emissions and the
 6 potential emissions in the prior permit would be the same?
 7 A. Dogwood requested that voluntary limit, if you
 8 will, to maintain that level of potential emissions. Even
 9 though they were increasing the operating capacity, they
 10 stated they would take that as a permit limit of potential
 11 emissions in order to avoid PSD review and make the
 12 projected-actual-to-actual emission calculation work and be
 13 below the threshold.
 14 Q. Let me ask a question about that. If you go
 15 to table 1.
 16 A. Yes.
 17 Q. The existing actual emissions are set forth in
 18 the column fourth from the left; correct?
 19 A. That's correct.
 20 Q. And in the potential emissions of the
 21 application are in the next column to the right?
 22 A. That's correct.
 23 Q. And the potential -- existing potential
 24 emissions are in the column to the left?
 25 A. Yes.

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1 Q. You indicated that Dogwood took a permit limit
 2 on potential emissions. Would that limit, then, be reflected
 3 in the PTE number in the third column from the left in this
 4 table?
 5 A. The easiest way to look at the limit is
 6 actually on page 7 of the permit, which is the special
 7 condition which would be the enforceable part of the permit.
 8 Q. Okay.
 9 A. The rest of the permit tries to explain the
 10 permit conditions. I think it's easier to understand when
 11 you look at the condition on what they are limited to, which
 12 on page 7 of the permit, No. 25, Condition No. 25 says,
 13 Dogwood shall not exceed the future actual emissions used to
 14 determine the projected actual emissions of this project.
 15 And it lists out the different levels for the different
 16 pollutants. And these levels match the existing potential
 17 emission in the table 1.
 18 Q. Okay. So let me -- let me see if I can
 19 summarize this so I understand. There was an existing PTE
 20 limit for the source; correct?
 21 A. I don't know that this was a limit. This was
 22 the potential emissions of this source prior to this permit.
 23 Q. Prior to this permit?
 24 A. Yes.
 25 Q. Okay. So the -- and the source agreed to take

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1 a limit in the permit that would hold the future emissions of
 2 the source consistent with the potential emissions of the
 3 source prior to the permitting action?
 4 A. Right.
 5 Q. And that level of potential emissions was
 6 considerably above the actual emissions of the source,
 7 correct?
 8 A. That's correct.
 9 Q. So in order to determine, then, PSD
 10 applicability, was MDNR essentially comparing the potential
 11 emissions before the project to the future actual emissions
 12 at -- at that same level after the project?
 13 A. Yes. And that is why on page 10, there's an
 14 equation that states the projected actual emissions basically
 15 projected actual emissions equals zero because they have
 16 agreed to this permit limit of their potential, that they
 17 could have met with the previous equipment and prior to these
 18 upgrades.
 19 Q. Okay.
 20 A. I guess.
 21 Q. I see. So would it be fair to say that to
 22 determine PSD applicability, MDNR was looking at the
 23 potential emissions pre-project and comparing it to an agreed
 24 limit on potential emissions post-project that restricted
 25 emissions post-project to the same PTE as pre-project?

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1 A. Except we would say the condition is a
 2 projected actual to match the language in 52.21. The
 3 projected actual emissions are what the condition 25 is.
 4 Q. Okay. So the projected actual was the level
 5 of permitted emissions post-project?
 6 A. Yes.
 7 Q. And that was compared to the potential
 8 emissions pre-project?
 9 A. Yes.
 10 Q. And that resulted in a zero --
 11 A. Yes.
 12 Q. -- emission increase?
 13 A. Yes.
 14 Q. Was a copy of this permit sent to US EPA?
 15 A. I'm not -- I'm sure that it was at some point
 16 because I know they were involved in this discussion because
 17 as you can probably surmise, this was not a normal permit, so
 18 this is one case where we would have involved EPA in the
 19 discussion of the proposed path forward and the documentation
 20 of this demand growth exclusion, so EPA most likely asked for
 21 and received a copy of the permit.
 22 Q. And was the -- was the demand growth -- strike
 23 that.
 24 The page 10 in the in addition paragraph?
 25 A. Yes.

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1 Q. In the second sentence, it reads, based on the
 2 exclusion, Dogwood can exclude emissions that the existing
 3 unit could have accommodated prior to the project including
 4 any in -- including any increased utilization due to product
 5 demand growth. Do you see that?
 6 A. Yes.
 7 Q. And was the could have accommodated provision
 8 then the mechanism by which MDNR reached the conclusion that
 9 it could compare potential emissions pre-project to the
 10 agreed same level of emissions post-project, that is the same
 11 as the PTE pre-project?
 12 A. I'm sorry, it was a long question. Could
 13 you -- I lost in the middle. Could you restate that?
 14 Q. We talk -- we talked before about the fact
 15 that MDNR compared the potential emissions of the unit
 16 pre-project to a number post-project that the source agreed
 17 would be the same as the potential emissions pre-project
 18 yielding a zero emission increase; right?
 19 A. Yes.
 20 Q. And so my question to you is, is how did the
 21 could have accommodated provision fit into that analysis?
 22 A. The demand growth exclusion, is that what -- I
 23 mean, that's what?
 24 Q. Okay. That's fine. I see demand growth and I
 25 see could have accommodated.

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1 A. Right, right. As it states here, Dogwood
 2 utilized the exclusion of emissions attributed to demand
 3 growth as stated and allowed in 40 CFR 52.21 when they were
 4 calculating the emissions. This plant had historically
 5 operated as a small peaking facility and therefore only 24
 6 percent of the current capacity. However, they were
 7 intending to operate at more than that and by using the
 8 demand growth exclusion in 52.21 contended that they were
 9 fully capable of operating at the maximum, which was the same
 10 as the projected actual emissions limit that they accepted,
 11 then. So I'm not sure I'm answering your question because
 12 I'm not sure what the question was.
 13 Q. I think that was very helpful.
 14 A. Okay.
 15 Q. So let me -- let me ask you a couple
 16 questions.
 17 A. It was a complicated project at the time, so.
 18 Q. So the MDNR's calculated could have
 19 accommodated level was the same as the PTE of the project
 20 pre-project -- excuse me, PTE of the unit pre-project?
 21 A. We agreed that the potential emissions of the
 22 facility prior to this project was essentially the projected
 23 actual emissions and that the plant could actually operate at
 24 that level and they were accepting that limit as their
 25 projected actuals, so yes, I think in answer to your

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1 question.
 2 Q. Okay. And so -- and so because the source
 3 could have operated at the permitted level post-project in
 4 the -- in the baseline period, there was no emission
 5 increase?
 6 A. That's correct.
 7 MR. BONEBRAKE: All right. Let's take a short
 8 break.
 9 VIDEOGRAPHER: Okay. We're off the record at
 10 4:27.
 11 (A break was held.)
 12 VIDEOGRAPHER: Okay. We're back on the
 13 record. It's 4:53 p.m.
 14 BY MR. BONEBRAKE:
 15 Q. Before break, we were talking about a PSD
 16 permit issue to ADM. Do you recall that?
 17 A. Yes.
 18 Q. And I believe the exhibit we had was a final
 19 and effective signed PSD permit; right?
 20 A. Yes.
 21 Q. And so any comments that US EPA had on the
 22 public notice draft of that permit would have been reflected
 23 in the final effective version which was the exhibit version;
 24 right?
 25 A. It would be in the project file. It may not

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1 always be attached to the permit, but it would be in the
 2 project file if they submitted comments, yes.
 3 Q. And to the extent there was a change required
 4 to the PSD permit as a result of the comments, that would
 5 have been reflected in the final effected version of the PSD
 6 permit?
 7 A. Yes, that's correct.
 8 (Exhibit No. 23 was marked for
 9 identification.)
 10 BY MR. BONEBRAKE:
 11 Q. All right. Showing you what's been marked as
 12 Deposition Exhibit No. 23 for identification.
 13 A. Okay. Okay.
 14 Q. And have you had a chance to review the pages
 15 that comprise this exhibit in preparation for the deposition
 16 today?
 17 A. Yes, I did.
 18 Q. And what -- what is contained in this
 19 deposition exhibit?
 20 A. This is a letter from MDNR to City Utilities
 21 of Springfield. The permit applicability determination in
 22 response to your request from them.
 23 Q. Okay. And so all the documents in this
 24 exhibit relate to the MDNR applicability determination
 25 provided in its letter of July 2, 2008 to City Utilities of

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1 Springfield?
 2 A. Yes.
 3 Q. And on page 2 of the MDNR letter, there's a
 4 signature block. Is that your signature?
 5 A. Yes.
 6 Q. And were you at the time of your signature the
 7 permit section chief?
 8 A. Yes, I was.
 9 Q. And were you authorized to issue applicability
 10 determinations for MDNR at that time?
 11 A. Yes.
 12 Q. And is the contact person listed Chai Wei
 13 Jung?
 14 A. That's correct.
 15 Q. And what was that individual's involvement
 16 with the applicability determination?
 17 A. Chai Wei would have been the permit reviewer
 18 on this project.
 19 Q. And was that individual a staff engineer?
 20 A. Yes.
 21 Q. Is that individual still with MDNR?
 22 A. Yes.
 23 Q. In what capacity?
 24 A. He is still a permit engineer with the
 25 construction permit unit.

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1 Q. And based upon your review of the exhibit and
 2 any additional preparation that you performed for the
 3 deposition, what -- what was the project for which City
 4 Utilities sought from MDNR the applicability determination?
 5 A. They were requesting a determination to
 6 upgrade -- there's more detail in their letter than in ours,
 7 it looks like, upgrade the existing turbine rotor and inner
 8 casing and other ancillary provisions on the Southwest Power
 9 Station Unit 1.
 10 Q. And there's a reference in the City Utilities
 11 letter in the first paragraph, the dense-packed turbine
 12 project on our Southwest station. Do you see that?
 13 A. Yes.
 14 Q. Was the Southwest station a major source?
 15 A. Yes.
 16 Q. And so it would have been subject to PSD
 17 permitting had that station been proposing a modification
 18 that triggered PSD; correct?
 19 A. That's correct.
 20 Q. And dense-packed turbine is in initial caps.
 21 Do we know -- does MDNR know if City Utilities was proposing
 22 to replace existing turbines at Unit 1 with dense-packed
 23 turbines?
 24 A. It says to -- necessary to support the
 25 dense-packed turbine project, and then they go on to explain

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1 the project includes replacement of an existing unit with an
 2 enhanced model, redesign the turbine blade and geometry.
 3 Q. So does it -- does it look to you like the
 4 City Utilities was proposing to replace the existing turbine
 5 with a dense-packed turbine?
 6 A. I'm not sure where the term dense-packed
 7 turbine comes from because it says they're replacing the
 8 existing unit, which is a Westinghouse, with an enhanced
 9 model, which a Siemens Westinghouse.
 10 Q. Okay. So you're just not certain whether they
 11 were -- they were converting over to a dense-packed turbine?
 12 A. Right. I mean, their description is that
 13 they're replacing the Westinghouse unit with a Siemens
 14 Westinghouse unit.
 15 Q. And MDNR made a determination that no
 16 construction permit of any kind would be required with
 17 respect to the turbine project proposed by City Utilities; is
 18 that correct?
 19 A. That's correct.
 20 Q. And was the turbine project expected to
 21 improve the efficiency of the unit?
 22 MR. HANSON: Objection, lack of foundation.
 23 THE WITNESS: There's no indication in the
 24 letter of that. They were just asking for a determination on
 25 whether a permit's required.

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1 BY MR. BONEBRAKE:
 2 Q. Okay. Well, the second paragraph in the first
 3 page of -- of your letter --
 4 A. Uh-huh.
 5 Q. -- the second to last sentence reads, the
 6 proposed modifications are expected to increase turbine
 7 performance without impacting the turbine steam flow.
 8 A. Okay.
 9 Q. Do you recall what -- what you meant with the
 10 phrase "increased turbine performance?"
 11 A. Reading the Utilities letter, it looks like
 12 the language was taken almost -- it says, the last sentence
 13 in the first paragraph City Utilities letter, the result will
 14 be an increase in turbine output without increasing the
 15 output of the boiler or any increase in any emissions. So
 16 that -- that is a statement that City Utilities provided to
 17 us. We agreed with their justification enough and put it in
 18 our letter, so we were just restating what the source
 19 provided to us.
 20 Q. And did -- did MDNR -- strike that.
 21 What was -- what was the basis upon which MDNR
 22 determined that no PSD permit would be required for the
 23 proposed turbine project?
 24 A. Based on the letter, it was based on the
 25 projected-actual-to-actual emissions test, which City

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1 Utilities provided to us and then we put the same results in
 2 the letter. So it was the projected-actual-to-actual
 3 emissions test.
 4 Q. And you're referring to table 1 of the MDNR
 5 letter?
 6 A. Yes.
 7 Q. So MDNR agreed that the turbine project would
 8 not increase projected emissions from actual baseline
 9 emissions?
 10 A. Yes. We were basically taking what the source
 11 provided and agreeing with that.
 12 Q. Okay. And on the table 1, there is a --
 13 there's an asterisk by actual emissions --
 14 A. Yes.
 15 Q. -- which reads highest two-year average
 16 reported during the previous five years?
 17 A. Yes.
 18 Q. Does that mean that for the
 19 actual-to-projected-actual emissions, the company was allowed
 20 to use the highest two-year average emissions during the five
 21 years prior to the proposed project?
 22 A. That's correct.
 23 (Exhibit No. 24 was marked for
 24 identification.)
 25

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1 BY MR. BONEBRAKE:
 2 Q. Okay. Showing you what's been marked as
 3 Deposition Exhibit No. 24 for identification.
 4 A. Okay.
 5 Q. If you could take a look at that, please.
 6 A. Yes.
 7 Q. Have you had a chance to review the exhibit?
 8 A. Yes.
 9 Q. And did you have an opportunity to review any
 10 of the pages that comprise this exhibit in preparation for
 11 your deposition today?
 12 A. I did.
 13 Q. And which of the pages did you have a chance
 14 to review in advance of the deposition?
 15 A. I reviewed the letter we wrote, the
 16 November 18th, 2009, MDNR letter to ADM. I believe I also
 17 reviewed some of the e-mail correspondence on this project as
 18 well as ADM's August 5th, 2009, letter.
 19 Q. And does the first page of this exhibit
 20 reflect the -- a file cover for the file that contains the
 21 documents for the applicability determination set forth in
 22 MDNR's November 18th, 2009, letter?
 23 A. Yes, that's correct.
 24 Q. And with respect to the November 18, 2009,
 25 letter, did you sign that letter?

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1 A. I did.
 2 Q. And at the time you signed the letter, you
 3 were permit section chief?
 4 A. That's correct.
 5 Q. And you were authorized at the time to sign
 6 letters regarding applicability determinations for MDNR?
 7 A. Yes.
 8 Q. And did Michael Mittermeyer draft the MDNR
 9 letter?
 10 A. Yes, that's correct.
 11 Q. And what was his role in the -- strike that.
 12 I'm interested in the fourth paragraph on the
 13 first page of the November 18, 2009 MDNR letter.
 14 A. Yes.
 15 Q. And was MDNR here responding to an issue
 16 raised by ADM about whether multiple activities at ADM plants
 17 should be aggregated for purposes of construction permit
 18 applicability assessment?
 19 A. Yes. We were responding to a letter they sent
 20 us. They had some units they needed to replace. At the
 21 time, we had a PSD application pending, so they asked for
 22 interpretation on whether they could do this project separate
 23 from the PSD project, so that was part of the communication
 24 here and this paragraph that you referenced is our response
 25 to that.

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1 Q. Now when you say ADM had a permit application
 2 pending, are you referring to the application that led to the
 3 PSD permit, which is contained in Exhibit 21?
 4 A. Yes, that's correct.
 5 Q. Okay. So the question, then, was whether the
 6 activities at issue in the PSD permit should be considered
 7 the same project --
 8 A. Right.
 9 Q. -- as additional activities that ADM was
 10 proposing?
 11 A. Right.
 12 Q. And are the additional activities that ADM was
 13 proposing set forth in the first sentence of the MDNR letter
 14 of November 18, 2009?
 15 A. Yes, that's correct.
 16 Q. In looking at the fourth paragraph of the
 17 November 18, 2009, letter, did MDNR in making its
 18 determination regarding whether aggregation was necessary
 19 look at whether the respective activities were technically or
 20 economically interconnected?
 21 A. We would follow EPA's guidance on aggregation
 22 on projects, so yes, that is one of the pieces of aggregation
 23 that EPA provides guidance on is how the projects are related
 24 by cost, economic relationships, so yes.
 25 Q. So in this case, MDNR was -- was focused on

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1 the issue of technical or economic interconnection; correct?
 2 A. Yes.
 3 Q. And did MDNR end up then concluding that under
 4 the technical or economic interconnection -- interconnection
 5 test that the activities at issue in the PSD permit should
 6 not be aggregated with the additional activities that ADM was
 7 proposing as described in the November 18, 2009, letter?
 8 A. Yes, that's correct.
 9 Q. Has MDNR used the technical or economic
 10 interconnection standard to determine whether other proposed
 11 projects should be aggregated?
 12 A. Yes.
 13 Q. And has that been the standard by which MDNR
 14 has made aggregation determinations?
 15 A. Yes, that is our factors in aggregated
 16 projects.
 17 Q. Well, let me make sure I understand that.
 18 A. Uh-huh.
 19 Q. There's a difference between using technical
 20 or economic interconnection as the standard and as using it
 21 as part of the standard.
 22 A. Uh-huh.
 23 Q. So which of those two answers are -- are you
 24 saying to me?
 25 A. Well, it's hard to answer that on all the

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1 projects we would review aggregation for because every
 2 project is very case by case. And we'll have projects come
 3 in very close to each other and we'll look at the planning
 4 cycle. I mean, if the facility admits to us when they come
 5 in for their second project, and maybe unintentionally, by
 6 telling us we've been planning this project for four years,
 7 so it's part of the same planning cycle as the project we
 8 just submitted, then we may need to review those submissions
 9 together for PSD applicability. So technical and economic
 10 interconnection, there's also additional factors in
 11 aggregation such as planning cycle that EPA provides guidance
 12 on.
 13 Q. Has MDNR issued itself any guidance on when it
 14 will or will not aggregate activities?
 15 A. No. We don't issue guidance per se. We use
 16 EPA guidance. You know, our staff would have projects --
 17 past projects issued available to review for things to look
 18 for. But we would rely on EPA guidance primarily. We have
 19 not drafted our own.
 20 Q. Other than this applicability determination,
 21 the November 18, 2009 applicability determination which
 22 utilized the technical or economic interconnection approach,
 23 are you aware of other MDNR applicability determinations that
 24 sets forth the -- approach the aggregation that MDNR is -- is
 25 using in a applicability determination?

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1 A. Specifically I would have trouble listing out
 2 all the projects that we have used aggregation on. This is a
 3 topic that comes up a lot in permit projects, whether the
 4 project should be aggregated, if we have a project for a
 5 facility -- facility A, for example, and we did a project six
 6 months prior, when we get that new application, we're going
 7 to look back at the permit we issued six months ago and
 8 determine whether we need to consider the emissions together.
 9 So it's -- it's a common occurrence for us to look at
 10 aggregation, so I'm not sure I can answer your question
 11 specifically.
 12 Q. Well, is there -- is there a source that --
 13 that -- or location of -- of guidance or standards that
 14 sources in Missouri can -- can go to to look at to say yes,
 15 this is how MDNR will look at the aggregation question, you
 16 know, for purposes of their own assessment of projects?
 17 A. Yes, we would refer sources to EPA's NSR
 18 database. That is the resource our staff use. That's
 19 where -- it's a database of documents from EPA. There is a
 20 lot of guidance in that. In addition to the aggregation,
 21 there is other topics there as well, but we would refer
 22 sources to that, since we use EPA's guidance.
 23 Q. Such as the guidance referred to in this
 24 determination that led to use of the technical or economic
 25 interconnection standard?

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1 A. That's correct, yes.
 2 (Exhibit No. 25 was marked for
 3 identification.)
 4 BY MR. BONEBRAKE:
 5 Q. Okay. We're showing you what's been marked as
 6 Deposition Exhibit No. 25 for identification.
 7 A. Okay.
 8 Q. Have you had a chance to review the exhibit?
 9 A. Yes.
 10 Q. And in preparation for the deposition today,
 11 did you have an opportunity to review any of the pages that
 12 comprise this exhibit?
 13 A. I did.
 14 Q. And which of the pages?
 15 A. It all looks familiar, so I think I probably
 16 reviewed -- other than the permit fee worksheet was not in
 17 the documents I reviewed, but I've seen the e-mails traffic,
 18 and Independence Power & Light's letter and our letter in
 19 response.
 20 Q. And what are the -- the documents that
 21 comprise this exhibit?
 22 A. This is the March 8th, 2010, letter from the
 23 Department of Natural Resources to Independence Power & Light
 24 responding to a request for a permit determination from
 25 Independence Power & Light on December 26th, 2009. They're

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1 requesting a permit determination based on a project
 2 replacing boiler tubes and steam generator tubes.
 3 Q. And did MDNR determine that no construction
 4 permit of any kind would be required for the project proposed
 5 by Independence Power & Light?
 6 A. Yes, based on the information provided, we
 7 said no permit is required.
 8 Q. And on page 2 of the MDNR's March 8th, 2010,
 9 letter, there is a signature block?
 10 A. Yes.
 11 Q. And is that your signature?
 12 A. Yes.
 13 Q. And you were then the permit section chief?
 14 A. Yes.
 15 Q. And authorized to issue applicability
 16 determinations at that time?
 17 A. Yes.
 18 Q. And was David Little the drafter of the MDNR
 19 March 8th, 2010 letter?
 20 A. Yes, that's correct.
 21 Q. Is he currently with MDNR?
 22 A. Yes, he is.
 23 Q. What is his position?
 24 A. He's an environmental engineer for the
 25 construction permit unit in the permit section.

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1 Q. The second paragraph in the March 8th, 2010,
 2 letter provides a description of the post-project; is that
 3 correct?
 4 A. Yes.
 5 Q. And is the description there of the project
 6 accurate to MDNR's knowledge?
 7 A. Yes.
 8 Q. The first sentence in the second paragraph
 9 refers to BBI as being not a base-loaded unit, a non-base
 10 loaded unit?
 11 A. That's correct.
 12 Q. Are you familiar with the term "base load?"
 13 A. Yes.
 14 Q. And what does that term mean?
 15 A. I probably won't do the technical -- most
 16 technical term, but a base load unit is one that is operating
 17 the majority of the time to provide power.
 18 Q. And the power plant at which these -- the
 19 proposed project was -- was going to take place, was that a
 20 major source?
 21 A. Yes.
 22 Q. So if the proposed project met the
 23 requirements for a modification, it would be subject to PSD
 24 permitting; is that correct?
 25 A. That's correct.

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1 Q. Now you note in the third paragraph on the
 2 first page of the letter that the project was not evaluated
 3 from RMRR; is that correct?
 4 A. That's correct.
 5 Q. We earlier looked at a document that set forth
 6 a number of factors relating to an RMRR determination?
 7 A. That's correct.
 8 Q. And was -- was that letter addressing the RMRR
 9 issue that MDNR in this letter said it was not addressing?
 10 MR. HANSON: Objection, lack of foundation.
 11 THE WITNESS: We didn't address -- there
 12 are -- I would have to get the exhibit back out, but there
 13 are two different Independence Power & Light facilities:
 14 Blue Valley and Missouri City. And there were multiple
 15 projects, but the letter that we were reviewing earlier said
 16 that we -- if you wanted to -- us to determine if it's
 17 routine maintenance and repair, then these are the factors
 18 that you need to present information on. We didn't make a
 19 determination.
 20 BY MR. BONEBRAKE:
 21 Q. Okay. Thank you for that clarification.
 22 A. Yes.
 23 Q. And so what -- what was the basis upon which
 24 MDNR concluded that no PSD permit was going to be required
 25 for the proposed tube project?

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1 A. This -- it was based, I believe, if not the
 2 projected-actual-to-actual emissions -- it says, in order to
 3 demonstrate this project is not a major modification and no
 4 permit is required, Independence Power & Light Blue Valley
 5 shall keep records for baseline and future actual emissions
 6 as outlined in 40 CFR 52.21.
 7 So that was indicating the
 8 projected-actual-to-actual in this test, and that's the third
 9 paragraph of the letter. And then the fourth paragraph goes
 10 on to calculate the cost and then it is below the 50 percent
 11 level required to meet the definition of reconstruction under
 12 the NSPS.
 13 Q. Was there any actual-to-actual-projected
 14 assessment actually performed by MDNR?
 15 A. It is not included. We were just asking the
 16 source to make that request and based on the e-mail
 17 communication contained, that is something that we wanted to
 18 ask them to do to verify that it was not PSD. So that is
 19 calculations Independence Power & Light needs to make on
 20 their own, yes.
 21 Q. I'm sorry, so at the time, then, that the MDNR
 22 non-applicability -- no applicability determination letter
 23 was -- strike that.
 24 At the time the no permit required letter was
 25 issued by MDNR, there had been no actual-to-projected-actual

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1 emission assessment by the company or MDNR?
 2 A. That is correct.
 3 Q. And was MDNR then relying upon the records of
 4 actual emissions post-project to determine whether or not PSD
 5 would be triggered?
 6 A. Yes.
 7 Q. And so if actual emissions do not increase
 8 post-project as compared to the pre-project baseline
 9 emissions, PSD would not be triggered?
 10 A. That's correct.
 11 MR. BONEBRAKE: I'd like to go off the record
 12 for a few minutes, just want to check my notes, talk to my
 13 colleague to see if I have any additional questions and go
 14 back on the record.
 15 VIDEOGRAPHER: We're off the record at 5:23.
 16 (A break was held.)
 17 VIDEOGRAPHER: We're back on the record. It's
 18 5:33 p.m.
 19 MR. BONEBRAKE: Those are all the questions
 20 that I have for MDNR at this time. Subject to the additional
 21 questions that I might have pending to any questions that
 22 Mr. Hanson may present to the witness.
 23 CROSS-EXAMINATION
 24 QUESTIONS BY MR. HANSON:
 25 Q. Good afternoon, or good evening, Ms. Moore.

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1 As you know, my name's Andrew Hanson and I'm counsel for
 2 plaintiff United States in this case.
 3 A. Yes.
 4 Q. I have a number of questions I wanted to
 5 follow-up with you on regarding your testimony today.
 6 A. Okay.
 7 Q. Mr. Bonebrake, counsel for Ameren Missouri,
 8 had asked a series of questions about Missouri's
 9 implementation of the Federal Clean Air Act through the
 10 Missouri state implementation plan. Do you recall that?
 11 A. Yes, that's correct.
 12 Q. Okay. Now, Missouri implements major source
 13 PSD requirements through the EPA-approved state
 14 implementation plan at 10 CSR 10-6.060 section 8; is that
 15 correct?
 16 A. That's correct.
 17 Q. Okay. Now, does Missouri DNR follow EPA
 18 guidance in implementing the SIP?
 19 A. Yes, we do.
 20 Q. Okay. What are the sources of that EPA
 21 guidance that Missouri DNR follows?
 22 A. There are multiple sources. I'd say the main
 23 most used source is the NSR database that EPA maintains,
 24 which is a database of various documents on a variety of
 25 topics that EPA has compiled over the years. There are

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1 probably 30 years of documents in that database. The other
 2 guidance is from EPA or -- was that the question, from EPA?
 3 Q. Yeah.
 4 A. The other guidance, then, probably most
 5 important is just the verbal guidance that we receive from
 6 EPA staff on any particular project we have a question on.
 7 Q. Okay. I'd like to walk through a couple of
 8 those guidance documents. If you could turn to what has been
 9 marked as Exhibit 2. I don't know if you brought your own
 10 copy or not.
 11 A. I do have them, but.
 12 Q. You can use whichever --
 13 A. Okay.
 14 Q. -- whichever is easiest for you.
 15 MR. BONEBRAKE: Andrew, you're referring to
 16 the deposition Volumes 1 and 2 that you brought to the
 17 deposition today?
 18 MR. HANSON: That's correct.
 19 THE WITNESS: And Volume 2 is on tabs -- yes,
 20 all right.
 21 BY MR. HANSON:
 22 Q. Can you turn to tab 51?
 23 A. Oops, that's in Exhibit 3.
 24 Q. I'm sorry, I guess it was marked as Exhibit 3.
 25 I apologize.

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1 A. Fifty-one?
 2 Q. Yes, tab 51.
 3 A. Yes.
 4 Q. Okay. Do you recognize tab 51 as one of the
 5 WEPCo applicability determination letters that EPA has
 6 issued?
 7 A. Yes, that is correct.
 8 Q. Okay. And on tab 51, do you recognize the
 9 Bates number at the bottom of the page as beginning with an
 10 MDNR. Do you see that?
 11 A. Yes, I do.
 12 Q. Does this indicate to you that this was found
 13 in MDNR's files?
 14 A. Yes.
 15 Q. So this is one of the guidance documents that
 16 MDNR would look to as a source from EPA?
 17 A. That's correct.
 18 Q. Okay. Can you turn to tab 53 in Exhibit 3?
 19 A. Yes.
 20 Q. And again, do you recognize this as another of
 21 the WEPCo determination letters?
 22 A. That is correct.
 23 Q. And do you see the MDNR Bates reference below
 24 the bottom right-hand corner of the page?
 25 A. Yes.

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1 Q. Does that signify to you that this was a
 2 document found in MDNR's files?
 3 A. Yes, it is.
 4 Q. And thus it was a guidance document that MDNR
 5 relied on or could rely on in determining --
 6 A. Yes.
 7 Q. -- PSD applicability?
 8 A. Yes.
 9 Q. Okay. Turning back to Exhibit 51, do you
 10 understand -- I'm sorry, not Exhibit 51, tab 51 of Exhibit 3,
 11 do you understand the WEPCo -- this WEPCo determination
 12 letter to articulate factors to be considered in determining
 13 whether a project is routine maintenance?
 14 A. Yes, that is what that is.
 15 Q. And can you just briefly summarize what those
 16 factors are?
 17 MR. BONEBRAKE: Objection, foundation,
 18 document speaks for itself.
 19 THE WITNESS: Okay. Go ahead.
 20 BY MR. HANSON:
 21 Q. You can still answer.
 22 A. Okay. The factors I believe on -- I
 23 apologize, I'm looking at the right page, but this would be
 24 the factors that we have talked about before would be the
 25 nature and extent, the frequency and the cost.

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1 Q. And does it also include the purpose of the
 2 project?
 3 A. Yes.
 4 Q. Okay. Thank you. Turning to tab 53 of
 5 Exhibit 3, which I think you described as one of the WEPCo --
 6 another of the WEPCo letters?
 7 A. That's correct.
 8 Q. Do you recognize this document as providing
 9 some guidance for Missouri DNR on performing emissions
 10 projections into the actual-to-projected-actual test?
 11 MR. BONEBRAKE: Objection, foundation.
 12 THE WITNESS: Yes, this document is, again,
 13 a -- regarding to WEPCo, but it does answer or respond to a
 14 question on the issue of whether the actual-to-potential
 15 method or the potential to emit concept should be used to
 16 calculate emissions for PSD purposes.
 17 BY MR. HANSON:
 18 Q. Okay. Would you turn to tab 55 of
 19 Exhibit 3 -- or yeah, Exhibit 3?
 20 A. Yeah.
 21 Q. Okay. And do you recognize tab 55 as the
 22 Detroit Edison letter that Mr. Bonebrake has referred to
 23 earlier today?
 24 A. Yes, that's correct.
 25 Q. Okay. And do you see the MDNR Bates reference

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1 at the bottom of the page?
 2 A. Yes.
 3 Q. And that signifies to you, again, that this
 4 was found in MDNR's files?
 5 A. That's correct.
 6 Q. And is this letter a source of guidance for
 7 MDNR in analyzing PSD applicability?
 8 A. Yes. It is the -- regarding the subject of
 9 the project actual emissions.
 10 Q. Okay. Could you turn to on tab 55 of
 11 Exhibit 3, could you turn to -- I'm going to refer to the
 12 Ameren Bates reference.
 13 A. Okay.
 14 Q. Actually, no, I'll refer to the internal page
 15 numbering. Could you turn to of the attachment page 10?
 16 A. Yes.
 17 Q. Okay. Do you -- looking at page 10 and
 18 turning to page 11, do you recognize -- well, do you
 19 recognize the information on page 10 and 11 to be similar to
 20 the information that was provided in one of the Independence
 21 Power & Light letters that MDNR sent to Independence Power &
 22 Light?
 23 A. Yes, it summarizes the four or five factors,
 24 depending on if you keep nature and extent together, of the
 25 routine maintenance.

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1 Q. Okay. And -- and again, Missouri DNR has had
 2 this guidance available to it at least since the date the
 3 letter came out and was published on EPA's Web site?
 4 A. That's correct.
 5 Q. Do you know whether Missouri DNR has a
 6 statutory obligation to implement the Missouri SIP consistent
 7 with the Clean Air Act?
 8 MR. BONEBRAKE: Objection, foundation.
 9 THE WITNESS: State that again. I'm sorry.
 10 BY MR. HANSON:
 11 Q. Sure. Do you know whether Missouri DNR has a
 12 statutory obligation to implement the Missouri SIP consistent
 13 with the federal Clean Air Act?
 14 A. Yes.
 15 Q. And does?
 16 A. Yes. And -- and we do follow the Clean Air
 17 Act in the state of Missouri following our SIP, so.
 18 Q. How would you characterize EPA's role in
 19 implementing the SIP or the Clean Air Act in Missouri's
 20 boundaries?
 21 MR. BONEBRAKE: Objection, asked and answered.
 22 Go ahead.
 23 THE WITNESS: EPA provides the oversight of
 24 the implementation of the Clean Air Act in the state of
 25 Missouri and I would describe them as our partner in

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1 implementing the Clean Air Act in Missouri, because it is
 2 their federal regulations that our regs and SIP is based on.
 3 BY MR. HANSON:
 4 Q. Okay. If EPA and Missouri Department of
 5 Natural Resources disagreed on the interpretation of the
 6 Missouri SIP, whose interpretation of the Missouri SIP would
 7 you say it governs --
 8 MR. BONEBRAKE: Objection, foundation, legal
 9 conclusion.
 10 THE WITNESS: I would say EPA because it is
 11 EPA's federal rules, so.
 12 BY MR. HANSON:
 13 Q. And when you say it "is EPA's federal rules,"
 14 are you referring to the Missouri SIP?
 15 A. Yes, our SIP is based on the EPA's federal
 16 rules and the Clean Air Act.
 17 Q. Okay. Mr. Bonebrake asked you a series of
 18 questions about the PSD applicability test and I'd like to go
 19 over that test a little bit --
 20 A. Okay.
 21 Q. -- and follow-up. Now your understanding is
 22 the PSD applicability test, and I'm referring to the federal
 23 PSD applicability test --
 24 A. Right.
 25 Q. -- that that has two parts; correct?

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1 A. Yes.
 2 MR. BONEBRAKE: Object. Objection,
 3 foundation. Go ahead.
 4 THE WITNESS: Okay.
 5 BY MR. HANSON:
 6 Q. And the first part is whether there's been a
 7 physical or operational change?
 8 A. That's correct.
 9 Q. And the second part is whether that physical
 10 or operational change would result in a significant and add
 11 emissions increase?
 12 A. Yes.
 13 Q. Okay. I'd like to talk about the emissions
 14 part of the applicability test.
 15 A. Okay.
 16 Q. How would you characterize before NSR reform
 17 what the PSD federal PSD applicability test was --
 18 MR. BONEBRAKE: Objection, foundation.
 19 BY MR. HANSON:
 20 Q. -- for emissions?
 21 A. Okay. And this is where the terms, I
 22 apologize, get mixed in my head. We would view the potential
 23 emissions of the project for PSD applicability and the actual
 24 emissions of the effected emission unit, if needed.
 25 Q. Okay. And so are you referring to that as the

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1 actual-to-potential test?
 2 A. Yes.
 3 Q. Okay. Was there another test that applied to
 4 other sources before NSR reform, under the Missouri SIP?
 5 A. Under the Missouri SIP? My confusion is --
 6 I'm sorry, the lateness of the day is getting to me. The --
 7 I would -- under the WEPCo, there was the actual emissions
 8 test, but that was not part of the SIP, so I'm not sure I'm
 9 answering that correctly.
 10 Q. Okay. Would you have applied the -- well,
 11 strike that.
 12 A. Okay.
 13 Q. Tuming, then, to after NSR reform, how would
 14 you characterize the applicable emissions test?
 15 A. The NSR reform rules allowed sources to look
 16 at the projected-to-actuals minus the actual emissions for
 17 PSD applicability.
 18 Q. Okay. And Missouri DNR adopted NSR reform in
 19 roughly 2004?
 20 A. Yes, that's correct.
 21 Q. Okay. Do you understand that EPA approved
 22 certain parts of the NSR reform rule into the Missouri SIP in
 23 June of 2006?
 24 A. Yes.
 25 MR. BONEBRAKE: Objection, foundation. Go

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1 ahead.

2 THE WITNESS: Yes.

3 BY MR. HANSON:

4 Q. Turning for a moment to – back to routine

5 maintenance.

6 A. Okay.

7 Q. Is it your understanding that the routine

8 maintenance test is to be construed narrowly or is it to be

9 construed broadly.

10 MR. BONEBRAKE: Objection, foundation, legal

11 conclusion.

12 THE WITNESS: In my experience and in

13 conversations with EPA staff, routine maintenance and repair

14 is fairly narrow in interpretation.

15 BY R. HANSON:

16 Q. Okay. Mr. Bonebrake asked you a series of

17 questions about the construction permit exemptions.

18 A. Yes.

19 Q. And I want to make sure the record was clear

20 in that regard. Do you understand the construction permit

21 exemptions to apply to exempt sources who are subject to

22 federal PSD from having to obtain federal PSD requirements?

23 MR. BONEBRAKE: Objection, legal conclusion.

24 Go ahead.

25 THE WITNESS: The way our exemptions are

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1 written and the interpretation and intention of them is, they

2 are applied after it is determined a PSD permit is not

3 applicable and then the exemption rules follow to determine

4 if the source or installation needs to obtain a minor source

5 or De Minimus permit in the state of Missouri.

6 BY MR. HANSON:

7 Q. Okay. So to make sure I understand, the

8 construction permit exemptions do not apply where federal PSD

9 is found to apply?

10 MR. BONEBRAKE: Objection, legal conclusion.

11 THE WITNESS: The construction permit

12 exemptions would be the – the next step after the federal

13 PSD rules are found not to apply, so then the state

14 exemptions are looked at to determine – exemptions from

15 minor and De Minimus permits.

16 BY MR. HANSON:

17 Q. Okay. Thank you. Could you turn in Exhibit 3

18 to Tab No. 60? Let me know when you're there.

19 A. Yeah.

20 Q. Okay. Do you understand Tab No. 60 to be an

21 EPA Federal Register Notice?

22 A. Yes, that's correct.

23 Q. Concerning a SIP revision submitted by the

24 state of Missouri for inclusion of revisions to the

25 construction permit exemptions rule?

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1 A. That's correct.

2 Q. Turning to the second page of that federal

3 register notice in 70316, which is at the top left-hand

4 corner.

5 A. Right.

6 Q. Are you there? Okay. Do you see the header

7 in the second column which says, what is being addressed in

8 this document?

9 A. Yes.

10 Q. Okay. Do you understand that it's EPA's

11 position that the intent of the construction permit

12 exemptions rule is to exempt minor and De Minimus sources

13 from permitting requirements?

14 MR. BONEBRAKE: Objection, foundation.

15 THE WITNESS: Yes, that is what it states.

16 BY MR. HANSON:

17 Q. Okay. And do you further understand that it's

18 EPA's positions that sources which would emit at or above

19 major source levels are not eligible for those exemptions?

20 MR. BONEBRAKE: Same objection.

21 THE WITNESS: That is what it states, yes.

22 BY MR. HANSON:

23 Q. Okay. And so you understand that to be EPA's

24 position?

25 A. That is EPA's position.

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1 Q. Okay. Mr. Bonebrake asked you about a series

2 of no permit required letters.

3 A. Yes.

4 Q. And some of the nomenclature that we've used

5 today may have gotten a little mixed up. Sometimes he

6 referred to those as applicability determinations?

7 A. Yes.

8 Q. And as I ask you questions about them, I'm

9 going to refer to them as no permit required letters.

10 A. Okay.

11 Q. So are no permit required letters intended to

12 be generally applicable guidance documents for all sources in

13 Missouri?

14 A. No, they are a letter to a specific source for

15 a very specific activity at that source.

16 Q. Are they on a Web site that a source could go

17 to?

18 A. No, we do not maintain these in a database.

19 Q. Okay. So they're – in that sense, they're

20 different than EPA's guidance and policy database?

21 A. Yes.

22 Q. Okay. And I think you just mentioned that

23 they're issued – these no permit required letters are issued

24 to specific sources for specific situations?

25 A. That's right, they're case by case.

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1 Q. Okay. And is it correct that not all no
 2 permit required letters are sent to EPA for review?
 3 A. That's correct.
 4 Q. Okay. And when do you send no permit required
 5 letters to EPA?
 6 A. We don't have a formal procedure of when we
 7 send them. I believe I mentioned earlier if we call EPA and
 8 ask for their guidance on a permit determination, we would
 9 copy them on the final letter or send them a draft of a
 10 letter during the review process. We issue hundreds of no
 11 permit required letters over a span of time and EPA doesn't
 12 want to read those either, so we would only issue them if --
 13 most likely if we would have asked for their opinion on
 14 something.
 15 Q. Okay. And are no permit -- when you issue a
 16 no permit required to a source, are you intending in any way
 17 to preclude EPA from following up later through an
 18 enforcement action or through a permitting action?
 19 MR. BONEBRAKE: Objection, foundation, legal
 20 conclusion.
 21 THE WITNESS: What we are doing with a no
 22 permit required letter is responding to the source with our
 23 interpretation of the rules to the best of our ability. That
 24 does not preclude EPA from enforcing their own rules and we
 25 are -- we try to be very careful when we respond to

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1 applicability determinations because of that. We want to
 2 interpret the rules the same way as EPA. We may not always
 3 do that, but we want to send that letter to the best of our
 4 ability in interpreting the rules the way EPA would.
 5 BY MR. HANSON:
 6 Q. Okay. And -- but in the event that perhaps
 7 Missouri DNR has made a mistake or issued a contrary
 8 interpretation, you're not intending to prevent EPA from
 9 following up or correcting the mistake either through a
 10 permitting action or an enforcement action?
 11 MR. BONEBRAKE: Objection; foundation, legal
 12 conclusion.
 13 THE WITNESS: That is not the intent of a no
 14 permit required letter.
 15 BY MR. HANSON:
 16 Q. Okay. Would Missouri DNR ever recommend to a
 17 source that it rely on a no permit required letter sent by
 18 Missouri DNR to another source for purposes of determining
 19 whether PSD might apply to that source?
 20 A. No.
 21 Q. Okay. So you're not -- so a no permit
 22 letter -- no permit required letter is not intended to create
 23 any sort of precedential effect?
 24 MR. BONEBRAKE: Objection, legal conclusion
 25 and foundation.

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1 THE WITNESS: No. As I said, our process on
 2 applicability determinations is we are trying to interpret
 3 the rules for that specific installation and based on that
 4 specific activity. And one of the reasons we wouldn't
 5 recommend that is interpretations change, and over the years,
 6 we get a little better at responding to these letters and --
 7 and get a little more detail in these letters. So we would
 8 not -- a lot of times internally we don't use them.
 9 BY MR. HANSON:
 10 Q. Okay. Do you know whether Ameren ever -- let
 11 me back up.
 12 You said you reviewed at some point in the
 13 past the Amended Complaint in this case?
 14 A. Yes.
 15 Q. Okay. Based on your recollection of having
 16 reviewed the Amended Complaint in this case, do you know
 17 whether Ameren ever sought a no permit required for the
 18 projects identified in the Amended Complaint?
 19 A. Could you restate the question so I make sure
 20 I answer it?
 21 Q. Sure. Do you know whether Ameren ever sought
 22 a no permit required letter for any of the projects in the
 23 Amended Complaint?
 24 A. Based on my review, they did not.
 25 Q. Okay. Turning back to the Missouri SIP.

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1 A. Yes.
 2 Q. I wanted to ask you a couple more questions
 3 about the record-keeping requirements for a Missouri SIP. If
 4 you could turn to, again, Exhibit 3, which you have in front
 5 of you.
 6 A. Yes.
 7 Q. And then turn to tab 50.
 8 A. Okay.
 9 Q. Okay. Do you -- looking at tab 50, do you
 10 recognize that as an EPA Federal Register Notice?
 11 A. Yes, it is.
 12 Q. And you see the date is June 27th, 2006?
 13 A. That's correct.
 14 Q. Okay. And do you understand that this is the
 15 EPA Federal Register Notice that is approving certain
 16 portions of the NSR reform rule into the Missouri SIP?
 17 A. Yes.
 18 Q. Okay. If you could turn to the second page --
 19 I'm sorry, if you could turn to the third page of this
 20 Federal Register Notice. Do you see in the heading what is
 21 EPA's final action on Missouri's rule to incorporate NSR
 22 reform?
 23 A. Yes.
 24 Q. Okay. And going one, two, three paragraphs
 25 down, do you see the sentence that begins, in that letter,

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1 Missouri explained that it intended? It's the second -- I
 2 think second to last sentence in that paragraph.
 3 A. Oh, yes, okay.
 4 Q. And it reads, in that letter, Missouri
 5 explained that it intended to remove the clean unit and PCP
 6 provisions from its rule and that it would not apply the
 7 remanded portion of the federal rule until EPA responds to
 8 the remand and takes final action on this portion of the
 9 Missouri rule. Do you see that?
 10 A. That's correct, yes.
 11 Q. And do you understand the remanded portion to
 12 relate to reasonable possibility --
 13 MR. BONEBRAKE: Objection.
 14 MR. HANSON: -- of record-keeping
 15 requirements?
 16 MR. BONEBRAKE: Objection, foundation.
 17 THE WITNESS: Yes.
 18 BY MR. HANSON:
 19 Q. And do you see the last sentence, where it
 20 says, in the interim, all sources which use the
 21 actual-to-projected-actual applicability test authorized in
 22 the federal rule would be required to maintain the records
 23 identified in 40 CFR 52.21 R6?
 24 A. Yes, that's correct.
 25 Q. Okay. And you understand that provision to

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1 cite the reasonable possibility in record-keeping
 2 requirements?
 3 A. Yes, I do.
 4 Q. So is it your understanding that at the time
 5 of EPA SIP approval that sources in Missouri that applied the
 6 actual-to-projected-actual applicability test were required
 7 to maintain the records identified in that rule?
 8 A. Yes.
 9 MR. BONEBRAKE: Objection, legal conclusion
 10 and foundation.
 11 BY MR. HANSON:
 12 Q. Okay. Well, this is a 30(b)(6) deposition,
 13 and you know that I'm asking for Missouri's position on the
 14 issue?
 15 A. Yes, that's correct.
 16 Q. Okay. And do you understand the reasonable
 17 possibility -- well, let me back up.
 18 Do you understand the federal PSD program to
 19 be a preconstruction program?
 20 A. Yes, that's correct.
 21 Q. And by that, that means that a source is
 22 required to project the emissions that are expected to result
 23 from physical and operational change before undertaking that
 24 particular change?
 25 A. Yes.

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1 MR. BONEBRAKE: Objection, legal conclusion.
 2 BY MR. HANSON:
 3 Q. Make sure for the record.
 4 A. Yes.
 5 Q. Yes. Okay. Thank you. And so your
 6 understanding of the Missouri SIP as it implements NSR reform
 7 is that a source is required to prepare a pre-project
 8 emissions projection to determine whether PSD would be
 9 triggered?
 10 MR. BONEBRAKE: Objection, legal conclusion,
 11 foundation.
 12 THE WITNESS: That -- that would be what the
 13 source would need to do to have on hand to determine that
 14 they did not receive a PSD permit, yes.
 15 BY MR. HANSON:
 16 Q. Okay. And further, the source is required to
 17 maintain those records?
 18 A. That's correct.
 19 Q. Okay. I wanted to ask you or follow-up on a
 20 couple of questions regarding some of the no permit required
 21 letters that Mr. Bonebrake showed you.
 22 A. Okay.
 23 Q. So I'll let you get oriented for a moment.
 24 A. Okay.
 25 Q. Okay. Turning to Exhibit 10. And --

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1 A. Okay.
 2 Q. I think Mr. Bonebrake pointed you to -- well,
 3 I think you recall Exhibit 10 is a no permit required letter
 4 issued to Associated Electric. Do you see that?
 5 A. Yes.
 6 Q. Okay. And in making this no permit
 7 determination or no permit required letter, is it fair to say
 8 that you essentially accepted the representations and relied
 9 upon the representations of the source who sought it?
 10 A. Yes.
 11 Q. Okay. I note that in the second full
 12 paragraph, you see the sentence that says, the new tubes will
 13 not result in an increase in utilization of the boiler?
 14 A. Yes, that's correct.
 15 Q. Okay. If new tubes would result in an
 16 increase in utilization of the boiler, would that change your
 17 determination?
 18 MR. BONEBRAKE: Objection, speculation,
 19 conjecture.
 20 THE WITNESS: It would factor into the
 21 analysis if they increased the utilization, yes.
 22 BY MR. HANSON:
 23 Q. Okay. And would an increase in operating
 24 hours expected to result in the project also factor into your
 25 analysis?

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1 MR. BONEBRAKE: Same objections.
 2 THE WITNESS: Yes.
 3 BY MR. HANSON:
 4 Q. And how would they factor into your analysis?
 5 A. The increase of hours of operation depending
 6 on the situation could increase the potential emissions of
 7 the project.
 8 Q. Could it also increase the projected actual
 9 emissions?
 10 A. Yes.
 11 Q. Okay. Let's turn to Exhibit No. 12.
 12 Actually, turn to Exhibit No. 11. I jumped ahead. Do you
 13 recall that Exhibit No. 11 is another no permit required
 14 letter –
 15 A. Yes.
 16 Q. – issued by Missouri DNR?
 17 A. Yes.
 18 Q. Okay. And it was sought by the Associated
 19 Electric Cooperative, do you see that?
 20 A. That's correct.
 21 Q. Okay. And on page 2 of that letter on
 22 Exhibit 11, do you see the sentence, the project will not
 23 result in an increase in emissions, increased utilization of
 24 the boiler, and does not reconstitute reconstruction?
 25 A. That's correct.

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1 Q. And so I have the same question for you: If
 2 the project would result in an increase in utilization, would
 3 that change or effect your determination?
 4 MR. BONEBRAKE: Objection, speculation,
 5 conjecture.
 6 MR. HANSON: That would factor into the
 7 analysis and possibly change.
 8 BY MR. HANSON:
 9 Q. Okay. And again, did you rely on the
 10 representations of the source who sought the no permit
 11 required in determining that there would be no increase in
 12 the utilization?
 13 A. Yes, I did.
 14 Q. Okay. Did – well. Turning to Exhibit
 15 No. 12. Do you recognize Exhibit No. 12 as an applicability
 16 determination – well, a no permit required letter sought by
 17 Aquila Environmental Services?
 18 A. Yes.
 19 Q. And it relates to the Sibley generating
 20 station?
 21 A. That's correct.
 22 Q. And it's dated March 5th, 2008?
 23 A. Yes.
 24 Q. Okay. Do you see the sentence, this proposed
 25 modification to create a boiler nose will not increase

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1 maximum heat input or emissions in any criteria pollutant
 2 from the boiler and will not eliminate routine outages or
 3 alter the operation of boiler if any significant way. Do you
 4 see that?
 5 A. Yes.
 6 Q. Okay. Again, did you rely on the
 7 representations of this source seeking a no permit required
 8 in making that conclusion?
 9 A. Yes, we did.
 10 Q. Okay. And if – do you see the phrase "will
 11 not eliminate routine outages?"
 12 A. Yes.
 13 Q. Okay. Would your determination change if the
 14 project was expected to eliminate routine outages?
 15 MR. BONEBRAKE: Objection, calls for
 16 speculation and conjecture.
 17 THE WITNESS: That possibly would change, yes.
 18 BY MR. HANSON:
 19 Q. Okay. Turning to -- we'll skip ahead to
 20 Exhibit 16. Do you recognize Exhibit 16 as one of the
 21 Independence Power & Light letters that Mr. Bonebrake asked
 22 you about?
 23 A. Yes.
 24 Q. Okay. And do you see the sentence in the
 25 second paragraph that says, no modification to the design or

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1 material will be implemented? Do you see that?
 2 A. Yes.
 3 Q. And that's referring to some boiler tubes that
 4 Independence Power & Light was planning to replace?
 5 A. That's correct.
 6 MR. BONEBRAKE: I'm sorry, Andrew, where are
 7 you?
 8 MR. HANSON: I'm on Exhibit 16, I'm on the
 9 first page of the letter. If you want me to refer to it by
 10 Bates AM-00024472-MDNR.
 11 MR. BONEBRAKE: And what – what sentence were
 12 you referring to?
 13 MR. HANSON: It's no modification to the
 14 design or material will be implemented.
 15 BY MR. HANSON:
 16 Q. Do you see that?
 17 A. Yes.
 18 Q. Okay. And did you rely on the source's
 19 representation to determine that no modification to the
 20 design or material will be implemented?
 21 A. Yes.
 22 Q. Okay. If there was expected to be a change to
 23 the design of the component or tubes being replaced, would
 24 that change your analysis -- would that change or effect your
 25 analysis?

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1 MR. BONEBRAKE: Calls for speculation and
 2 conjecture.
 3 THE WITNESS: As I mentioned, these no permit
 4 required letters are very case by case. So if anything
 5 changes, then the analysis would change, so yes, if the -- if
 6 there was a modification to the design, it could possibly
 7 change the analysis.
 8 BY MR. HANSON:
 9 Q. Okay. Thank you. Oh, I'm sorry, and staying
 10 on Exhibit No. 16, do you see where it says in the same
 11 paragraph, IPL forecasts that usage of MC tube will decrease
 12 in years beginning in 2009?
 13 A. Yes.
 14 Q. And then it says, thus, IPL is not projecting
 15 any increase in capability or operating hours due to the
 16 project?
 17 A. Yes.
 18 Q. Okay. Why would that be relevant to your
 19 analysis of whether federal PSD would apply to this project?
 20 MR. BONEBRAKE: Objection, foundation.
 21 THE WITNESS: That would be part of the
 22 projected actuals. If they were increasing the capability or
 23 operating hours, it could affect the projected actuals.
 24 BY MR. HANSON:
 25 Q. And thus trigger possible PSD requirements?

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1 A. Yes.
 2 Q. Okay. Thank you. Okay. I wanted to turn to
 3 Exhibit No. 17. Well, actually, we'll come back to that in
 4 just a little bit.
 5 Okay. If you could turn to Exhibit 18. I
 6 just want to clarify something.
 7 A. Okay.
 8 Q. Do you remember when we were talking about the
 9 Detroit Edison letter that was contained in the binder that's
 10 marked as Exhibit 3?
 11 A. Yes.
 12 Q. Okay. And Mr. Bonebrake showed you as part of
 13 Exhibit 18 a letter from Missouri DNR to Independence Power &
 14 Light that begins on Bates No. AM-00433316-MDNR?
 15 A. Yes.
 16 Q. Okay. And is this the -- and the letter is
 17 dated April 5th, 2010. Do you see that?
 18 A. Yes, that's correct.
 19 Q. Okay. And is this the letter that essentially
 20 sends the factors identified in the Detroit Edison letter to
 21 Independence Power & Light?
 22 A. Yes.
 23 Q. Okay. Thank you. Turning to Exhibit No. 20.
 24 A. Yes.
 25 Q. Okay.

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1 A. Sorry.
 2 Q. Do you recognize this as one of the no permit
 3 required letters that Mr. Bonebrake showed you?
 4 A. Yes.
 5 Q. Okay. And it's an April 17th, 2009 letter
 6 from MDNR to the Springfield City Utilities?
 7 A. That's correct.
 8 Q. Okay. And again, did you rely on the source's
 9 representations in this instance that there would be no
 10 emissions increase due to the project?
 11 A. Yes, we did.
 12 Q. Okay. I wanted to ask you, again, how many no
 13 permit required letters do you -- or does Missouri DNR
 14 process annually?
 15 A. I don't have the numbers specific. I would
 16 estimate -- depending on the year, we issue probably 600 to
 17 1,200 in our good years of construction permit projects. I
 18 would say probably 20 to 30 percent of those are
 19 applicability determinations.
 20 Q. Meaning determinations of whether federal PSD
 21 applies?
 22 A. Or whether any permit is required. A lot of
 23 our no permit required letters are from sources that are
 24 smaller sources.
 25 Q. Okay.

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1 A. So.
 2 Q. So just doing the math, I think you said 600
 3 to 1,200 in a given year?
 4 A. Those are the total construction permit
 5 projects. That includes everything, permit determinations,
 6 permits, all the construction permits. I'd say probably,
 7 again, this is approximate, because I didn't pull these
 8 numbers, but probably one to two hundred permit
 9 determinations, no permit required to all facilities, major
 10 sources, minor sources, De Minimus. So not all of those
 11 would trigger a PSD question first. We have a lot of small
 12 facilities in Missouri.
 13 Q. Okay.
 14 A. So.
 15 Q. And is that on top of the PSD permits that you
 16 actually issue as well?
 17 A. Yes.
 18 Q. Okay. How many staff do you have devoted to
 19 responding to no permit required letters?
 20 A. We have 27 staff members in the permit section
 21 currently. Three of those are permit modelers, three
 22 managers. I think there's ten in the construction permit
 23 unit that includes the supervisor. There might just be nine.
 24 I don't have my org chart in front of me. So those nine to
 25 ten staff members would respond to all construction permit

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1 items, including permit determination requests.
 2 Q. Okay. So are you saying that there are ten
 3 people, roughly, to respond to 600 to 1,200 requests for no
 4 permit required?
 5 MR. BONEBRAKE: Objection, foundation,
 6 mischaracterization of testimony.
 7 MR. HANSON: I'm just trying to understand.
 8 THE WITNESS: Yeah, those ten individuals will
 9 respond to all the permit projects in the -- in the
 10 construction permit projects in that unit. That's 600 to
 11 1,200 projects. And right now the last three years, we're
 12 probably averaging 800 projects a year. That includes a
 13 portion that is no permit required. Every permit writer is
 14 assigned applicability determinations in addition to their
 15 normal construction permits, whether they're De Minimus,
 16 minor, or PSD permit projects.
 17 BY MR. HANSON:
 18 Q. Okay. So to make sure I understand this
 19 right, there are -- there are roughly ten people to handle
 20 the 800 or so letters that come in?
 21 A. The projects, yes.
 22 Q. For projects?
 23 A. Including permits.
 24 Q. Including permits?
 25 A. Yes, that does include permits.

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1 Q. So there's 800 letters that come in and then
 2 there's permits that need to be issued on top of that?
 3 A. The 800 includes the permits. I'm sorry, I'm
 4 not explaining that very well. We consider a project because
 5 we talked about these permit tracking sheets, every project
 6 number that comes in the door is assigned to a permit writer.
 7 And in the construction permit unit, all projects -- and
 8 there are different types of projects. There are the
 9 applicability determinations, the no permit requireds, there
 10 are the De Minimus permits, there's the minor permit
 11 applications, and there's PSD applications. That total
 12 compilation would be the 800 we're talking about.
 13 BY MR. HANSON:
 14 Q. Okay. Okay.
 15 A. So everyone receives applicability
 16 determinations. Just because the nature of them, not one
 17 person can handle them all. So -- and they get --
 18 Q. Can ten people handle them all?
 19 MR. BONEBRAKE: Objection, speculation.
 20 THE WITNESS: We do our best, so applicability
 21 determinations are something we've struggled with over the
 22 years because we don't get any money for them, so our permits
 23 that we receive have the \$100 filing fee and we charge a \$50
 24 an hour review fee. Our program is funded on those permit
 25 fees and emission fees. We don't -- and federal grants.

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1 So when we spend a lot of time on permit
 2 determinations, that is time that could be spent on permits
 3 and applicants are wanting those permits. And the vast
 4 majority of time, they don't really care too much about the
 5 applicability determinations, but they really want their
 6 permits so they can start that project.
 7 BY MR. HANSON:
 8 Q. Well, I think turning to Exhibit No. 20, on
 9 Bates No. AM-00025889-MDNR, do you see that, on Exhibit 20?
 10 A. Yes.
 11 Q. And do you recognize this as the construction
 12 permit fees worksheet?
 13 A. Yes.
 14 Q. And it appears from this worksheet that a
 15 total of seven hours was spent on the -- this no permit
 16 required letter?
 17 A. That's correct.
 18 Q. Okay. Does the workload that you just
 19 described limit MDNR's ability to spend a lot of time on no
 20 permit required letters?
 21 A. Yes, it can.
 22 Q. Okay. And does it?
 23 A. Yes.
 24 Q. Okay. Turning to -- and staying with that for
 25 a moment, and as a result, is that one of the reasons why you

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1 need to rely on the source's representations in the letters
 2 that they send to you?
 3 A. Yes.
 4 Q. Okay.
 5 A. We just don't physically have the time to do
 6 the research on those. We do a lot of research on the
 7 permits though.
 8 Q. Okay. Turning to -- I'm going to skip ahead
 9 to Exhibit No. 24.
 10 A. Okay.
 11 Q. Did you find it?
 12 A. Yes.
 13 Q. Okay. Do you see on exhibit number -- do you
 14 recognize Exhibit 24 as one of the no permit required letters
 15 that Mr. Bonebrake showed you?
 16 A. Yes, that's correct.
 17 Q. And it is a letter to ADM concerning a project
 18 to be performed at one of its facilities?
 19 A. Yes, that's correct.
 20 Q. And one of the issues in the letter is whether
 21 or not projects should be aggregated together for purposes of
 22 calculating emissions?
 23 A. Yes.
 24 Q. And I'm looking at page number
 25 AM-00438506-MDNR. Do you see that?

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1 A. Yes.

2 Q. Okay. Do you see in the fourth full paragraph

3 where it begins, according to guidance published by US EPA?

4 A. Yes.

5 Q. And do you see the sentence -- the second full

6 sentence that begins, EPA does not provide a regulatory

7 quote-unquote bright line with which to make this

8 determination, however EPA does state that for activities to

9 be substantially related, there should be an apparent

10 technical or economic interconnection between the activities

11 and it goes on?

12 A. Yes, that's correct.

13 Q. Okay. And in the preceding sentence, it's

14 referring to an EPA Federal Register Notice. Do you see

15 that?

16 A. Yes.

17 Q. Okay. Do you know whether or not that Federal

18 Register Notice refers to a proposed rule?

19 A. I would have to see the Federal Register

20 Notice to answer that. But my guess is it is the proposed

21 rule on aggregation that EPA attempted to finalize at one

22 time.

23 Q. Okay. And do you understand that that

24 proposed rule has been withdrawn?

25 MR. BONEBRAKE: Objection, legal conclusion,

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1 foundation.

2 THE WITNESS: Yes, that rule is not finalized.

3 BY MR. HANSON:

4 Q. Okay. And the last full paragraph, it refers

5 to -- and I'll just summarize for the sake of speed here,

6 whether there's been a technical or economic dependence of

7 the activities being performed.

8 A. Yes.

9 Q. Okay. Is that the criteria -- or I'm sorry,

10 is that the sole criteria that Missouri DNR would apply to

11 determine whether projects should be aggregated?

12 MR. BONEBRAKE: Objection, asked and answered.

13 THE WITNESS: No, that is not the sole

14 criteria?

15 BY MR. HANSON:

16 Q. Okay. What other criteria would you consider?

17 MR. BONEBRAKE: Same objection.

18 THE WITNESS: As I mentioned earlier, there

19 are other items such as planning cycle. We would consider

20 information from the source and how long they've been

21 planning the projects, whether they supplied that information

22 to us or we found the information on their Web site on plans

23 they were doing for the next ten years. So if they are

24 planning that, then we would consider those possibly

25 aggregated projects.

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1 BY MR. HANSON:

2 Q. Okay. Thank you. I'd like to turn now to

3 Exhibit No. 22, which Mr. Bonebrake showed you.

4 A. Yes.

5 Q. In Exhibit No. 22, you recognize that as a De

6 Minimus permit that was issued to Dogwood Energy?

7 A. Yes.

8 Q. Okay. And Mr. Bonebrake had a number of

9 questions for you concerning AM dash -- I'm going to refer to

10 the Bates number, the page that begins with AM-00446871-MDNR.

11 Do you see that?

12 A. Yes.

13 Q. Okay. And do you recall Mr. Bonebrake's

14 questions going to or relating to the demand growth

15 exclusion?

16 A. That's correct.

17 Q. And he generally referred to that as the

18 capable of accommodating exclusion?

19 MR. BONEBRAKE: Objection, foundation, asked

20 and answered.

21 THE WITNESS: Yes.

22 BY MR. HANSON:

23 Q. Okay. For background here, you understand

24 that this permit relates to some turbine projects that

25 Dogwood was performing at combustion turbines?

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1 A. That's correct.

2 Q. And one of the issues in the De Minimus permit

3 is whether or not the demand growth exclusion could apply to

4 exclude certain emissions from the actual-to-projected-actual

5 calculation; correct?

6 A. Yes, that's correct.

7 Q. Okay. And Dogwood represented -- well, do you

8 see the sentence that begins quote -- well, not quote, but

9 it's in the last -- it's in the final full paragraph of this

10 page. And I guess it's the second to last sentence, if

11 market conditions change such that operation at maximum

12 capacity is necessary. Do you see that?

13 A. Yes.

14 Q. And it goes on to say, Dogwood can meet that

15 demand with their current equipment independent of the

16 proposed upgrade. Do you see that?

17 A. That's correct.

18 Q. Okay. And is it your understanding the demand

19 growth exclusion that emissions that are related to a project

20 cannot be excluded under that exclusion?

21 MR. BONEBRAKE: Objection, legal conclusion.

22 THE WITNESS: The demand growth is in relation

23 to the existing or the -- what the facility could have done.

24 And so if the increase or the modification attributed

25 emission, those emissions could not be part of the demand

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1 growth equation. Is that what you're asking?
 2 BY MR. HANSON:
 3 Q. Yes.
 4 A. Okay.
 5 Q. So if the emissions are related to the
 6 project, those emissions can't be excluded?
 7 MR. BONEBRAKE: Objection, legal conclusion,
 8 asked and answered.
 9 THE WITNESS: Yes, that is -- that is the
 10 intention of the demand growth is that what the facility
 11 could have done prior to the project is what can be excluded
 12 under the demand growth. Nothing with the new project
 13 emissions or otherwise can be factored into that equation.
 14 BY MR. HANSON:
 15 Q. Okay. But my specific question relates to the
 16 relationship between the emissions and the project.
 17 A. Yes.
 18 Q. If the project would result in emissions,
 19 those emissions can't be excluded; correct?
 20 MR. BONEBRAKE: Objection, asked and answered.
 21 I think that's the third time you've asked that question of
 22 the witness.
 23 THE WITNESS: Yes.
 24 MR. BONEBRAKE: And characterization.
 25 MR. HANSON: Thank you.

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1 THE WITNESS: Yes.
 2 MR. HANSON: Okay. Just a second. That's all
 3 I have for now, subject to any follow-up after Mr. Bonebrake.
 4 Thank you.
 5 REDIRECT EXAMINATION
 6 QUESTIONS BY MR. BONEBRAKE:
 7 Q. I do have follow-up and unfortunately it's
 8 going to keep us here a little while.
 9 A. Okay.
 10 Q. So I will apologize in advance. I was not
 11 anticipating Mr. Hanson to have so many questions for you.
 12 Did Mr. Hanson and you talk about the
 13 questions he was going to ask you today?
 14 A. No, we reviewed the documents in the binders.
 15 MR. HANSON: And I'm also going to object that
 16 that calls for privileged communications, but you can
 17 answer --
 18 THE WITNESS: Okay.
 19 MR. HANSON: -- without revealing any
 20 privileged communications.
 21 BY MR. BONEBRAKE:
 22 Q. And did you review the -- what was in the
 23 binder during the course of the deposition today with
 24 Mr. Hanson?
 25 A. Yes.

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1 Q. And did Mr. Hanson refresh -- refresh your
 2 recollection about what was in the binder?
 3 A. We -- he went through the -- he prepared the
 4 binders for me and went -- I honestly hadn't opened the
 5 binders before I met with him. So we went through tab by tab
 6 just detailing what was in there and explaining to me that
 7 what he prepared was the documents that were in the subpoena
 8 and that I should be expected to answer questions on those
 9 documents.
 10 Q. Okay. But during the course of the deposition
 11 today, you looked at these documents as well with Mr. Hanson?
 12 MR. HANSON: Objection, that calls for
 13 privileged information. I'm instructing you not to answer.
 14 MR. BONEBRAKE: Mr. Hanson, if -- if you
 15 worked with the witness in preparing questions with her today
 16 based upon exhibits that you brought to the deposition and
 17 refreshed her recollection, that's not privileged because
 18 you're affecting and influencing her testimony today.
 19 MR. HANSON: I don't understand why that isn't
 20 privileged. I'm not sure I follow.
 21 MR. BONEBRAKE: Because you're putting at
 22 issue by refreshing the witness's recollection during the
 23 course of a deposition.
 24 MR. HANSON: But forgive me, can we go off the
 25 record for a second?

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1 MR. BONEBRAKE: No, let's stay on the record.
 2 MR. HANSON: No.
 3 MR. BONEBRAKE: Mr. Hanson, is the witness
 4 your -- is the witness your client?
 5 MR. HANSON: No, the witness is not my client.
 6 MR. BONEBRAKE: And --
 7 MR. HANSON: I'm not sure where this is going,
 8 Steve, and if you could just calm down for a minute, I think
 9 we can talk about this.
 10 MR. BONEBRAKE: I'm calm. If you're
 11 refreshing a witness's recollection telling her what
 12 questions you're going to ask and talk about what the answer
 13 is, particularly a witness that's not your client, you're
 14 refreshing her recollection, you're putting at issue your
 15 communications with her during the course of a deposition.
 16 MR. HANSON: I understand, Steve, but as you
 17 know, we have a joint prosecution privilege and a common
 18 interest with the state of Missouri and we've asserted that
 19 joint prosecution privilege.
 20 MR. BONEBRAKE: I've -- I've -- I've heard
 21 your -- your instruction to the witness. If need be, we
 22 can -- we can take this up separately with the -- with the
 23 judge, but my position will stand and I'm entitled to ask
 24 questions about your attempt, if any. I'm not saying you
 25 did, I don't understand what you did, that's what I was

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1 trying to get at, whether you're refreshing her recollection
 2 and influencing her testimony during the course of the
 3 deposition today. I think that's an area of proper inquiry
 4 for me.
 5 MR. McLANE: May I clarify that by during the
 6 course of the deposition, you mean on the record today?
 7 MR. BONEBRAKE: I don't mean on the record. I
 8 mean, it seems to me as if there's been a conversation, and
 9 just my speculation, between the witness and Mr. Hanson
 10 during the course of the deposition, maybe during breaks
 11 about questions he was going to ask her and perhaps answers
 12 that should be provided. And if that's the discussion that
 13 occurred, I'm entitled, I believe, to ask some questions
 14 related to that.
 15 MR. HANSON: Yeah, I think except the problem
 16 is Mr. Mock and I, who is also counsel for Ameren Missouri,
 17 have conferred and we've agreed that discussions during the
 18 breaks during depositions are not improper because it was
 19 raised at one of our previous -- at a previous deposition.
 20 MR. BONEBRAKE: With your witnesses, with your
 21 own clients.
 22 MR. HANSON: Well, as I said, we have a joint
 23 prosecution privilege that applies here with regard to this
 24 case.
 25 MR. BONEBRAKE: Is this witness your client?

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1 MR. HANSON: This witness is not our client,
 2 but again, we have a common interest and that common interest
 3 applies to protect privileged communications between us and
 4 the state of Missouri.
 5 I understand your position and I think you
 6 understand ours. If you're challenging whether or not that
 7 common interest applies and whether or not it exists, we can
 8 take that up separately with the Court, but I don't think
 9 it's proper for you to inquire and pierce and penetrate those
 10 privileged communications today and certainly not based on
 11 conversations that we've had with Mr. Mock.
 12 MR. BONEBRAKE: I'm going to have to reserve
 13 my right, then, to -- to reopen the deposition. I'll have to
 14 have a conversation with Mr. Mock and we'll have to decide
 15 whether or not that's something we want to do. I'll have to
 16 reserve my right to potentially reopen the deposition to ask
 17 questions regarding whether there are communications between
 18 Mr. Hanson and the witness that may have influenced her
 19 testimony in response to the questions that he just asked
 20 her. So I'll leave it at that for now.
 21 MR. HANSON: We may reserve the right to also
 22 reopen prior depositions on that basis as well with Ameren
 23 employees. We thought we had an understanding with Ameren
 24 and we need to be able to trust and rely on that
 25 understanding.

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1 MR. BONEBRAKE: I don't know what the
 2 discussion was, Andrew. As I mentioned, I will talk to Matt
 3 about it. We will -- I will make a decision and so I won't
 4 press it further at this point in time with the understanding
 5 that there's been some discussion that's probative on this
 6 issue. But I just reserve my right to reopen, if necessary,
 7 if it appears that we would have a right to ask these
 8 questions. That's all I'm saying. I'm not waiving that
 9 right by not pursuing this line of questioning right now.
 10 MR. HANSON: Okay.
 11 BY MR. BONEBRAKE:
 12 Q. Mr. Hanson was asking you some questions about
 13 the Dogwood determination.
 14 A. Yes.
 15 Q. And we had talked about that as well?
 16 A. Yes.
 17 Q. And that's Exhibit No.22?
 18 A. Yes.
 19 Q. And I think he asked you the same question
 20 three times and I thought I heard your answer but I just
 21 wanted to make sure I got it right. You were saying, were
 22 you not, that if the source could have accommodated the level
 23 of emissions prior to the project, then they're unrelated to
 24 the project and they can be excluded under the
 25 actual-to-projected test; is that correct?

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1 A. Okay. This demand growth gives me a headache.
 2 I apologize. So could you rephrase that so I make sure I'm
 3 answering it the same?
 4 Q. Sure.
 5 A. Okay.
 6 Q. Sure.
 7 A. I reviewed this, and I'm still having trouble.
 8 Q. If the source could have accommodated the
 9 level of emissions pre-project, then it can exclude from the
 10 projection that level of could have accommodated emissions?
 11 MR. HANSON: Objection, vague and ambiguous.
 12 THE WITNESS: The -- the demand growth is
 13 meant to account for what the source could have done prior to
 14 the project. So the project in question for the permit
 15 action, those emissions have to be set aside and then you
 16 look at the projected in this case, and this was an unusual
 17 one, and that's why I reviewed it in detail and I still feel
 18 like I'm probably not being clear.
 19 But the -- in this case, the tweaking or the
 20 increased efficiencies that they were planning, any emissions
 21 associated with that cannot be put into the demand growth
 22 equation because that's not what the demand growth exclusion
 23 is for. It's basically what the source could have done prior
 24 to that project. Is that answering your question?
 25 BY MR. BONEBRAKE:

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1 Q. So up to the level of emissions that could
 2 have been achieved pre-project --
 3 A. Yes.
 4 Q. -- can be excluded from the projection?
 5 A. Yes.
 6 Q. Thank you.
 7 A. Okay.
 8 Q. Mr. Hanson asked you a number of questions
 9 about no permit required letters.
 10 A. Yes.
 11 Q. And we talked about those at -- at some length
 12 as -- as well.
 13 A. Uh-huh.
 14 Q. MDNR recognizes, does it not, that it has a
 15 legal duty to issue no permit required letters that are
 16 accurate and correct?
 17 A. Yes.
 18 Q. And it makes its best effort to do so?
 19 A. We do.
 20 Q. And MDNR recognizes, does it not, that the
 21 source that requests the no permit required letter will rely
 22 upon that determination by the agency?
 23 A. Yes, we do. That's why we make our best
 24 determination.
 25 Q. And does MDNR recognize that its applicability

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1 determinations, no permit required determinations, are
 2 available to the public via foyer requests?
 3 A. Yes.
 4 Q. And does MDNR recognize that sources in the
 5 state of Missouri have access through consultants and other
 6 sources to applicability determinations --
 7 A. Yes.
 8 Q. -- issued by MDNR?
 9 A. Yes.
 10 Q. And isn't at any given time a no permit
 11 required determination issued by MDNR an indication for all
 12 sources in the state of MDNR's view of the regulatory
 13 requirements?
 14 A. Of that particular project, yes.
 15 Q. Of the particular regulations at issue in that
 16 project?
 17 A. Yes.
 18 Q. Because MDNR wants to get the interpretation
 19 right; correct?
 20 A. That's correct.
 21 Q. And so -- so sources should be able to rely
 22 upon the fact that MDNR wants to get the interpretation
 23 right; correct?
 24 A. Yes.
 25 Q. Mr. Hanson was -- was asking you as well about

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1 the -- the WEPCo applicability determinations.
 2 A. Yes.
 3 Q. I think there were two of them. They were
 4 tabs 51 and 53, I believe.
 5 A. Okay.
 6 Q. Let's talk about tab 51 first. And this is
 7 September 9th, 1988, memo. And this is tab 51 of Exhibit 3.
 8 A. Yes.
 9 Q. Is this an applicability determination for a
 10 specific source?
 11 A. Yes.
 12 Q. For a specific project?
 13 A. Yes.
 14 Q. And does EPA rely upon this as guidance
 15 generally for other sources?
 16 A. Yes.
 17 MR. HANSON: Objection, lack of foundation.
 18 BY MR. BONEBRAKE:
 19 Q. Fifty-three. And is this a US EPA letter to
 20 Mr. John Boston at WEPCo?
 21 A. Yes.
 22 Q. Again, it's tab 53 of Exhibit 3. And is this
 23 a applicability determination issued by US EPA to one
 24 specific source WEPCo?
 25 A. Yes.

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1 Q. For a specific project at WEPCo?
 2 A. Yes.
 3 Q. And does EPA use this AD as guidance with
 4 respect to other projects at other sources?
 5 A. Yes.
 6 MR. HANSON: Objection, lack of foundation.
 7 BY MR. BONEBRAKE:
 8 Q. Now, Mr. Hanson was mentioning that the
 9 documents at tabs 51 and 53 in Exhibit 3 have MDNR Bates
 10 stamps on them.
 11 A. Yes, that's correct.
 12 Q. Do you remember that? Do you know when MDNR
 13 obtained copies of the documents at tabs 51 and 53?
 14 A. The initial, no, I don't. And it's my
 15 understanding that this MDNR tab is that these were produced
 16 under sunshine requests.
 17 Q. By MDNR to Ameren Missouri, that's correct.
 18 A. Okay. As I mentioned earlier, there are -- we
 19 have a network drive that all permit writers use to store any
 20 number of documents for their reference. And these documents
 21 originally are found in EPA's NSR database.
 22 Q. Uh-huh.
 23 A. However, those documents can be saved as a
 24 pdf file and are frequently saved by different staff in
 25 their network folders to reference readily rather than go to

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1 EPA's database, which at one time several years ago had some
 2 issues with connectivity. So if -- if a staff member found
 3 the documents useful, he or she might, and in this case did,
 4 save it to the network drive.
 5 So this was obtained through one of the
 6 sunshine or subpoena requests and I don't know where the
 7 location was. My guess is this document is in multiple
 8 places on our network drive because, especially in recent
 9 years, there have been some questions in applicability
 10 determinations increase on routine maintenance. So these
 11 certain documents would be reviewed over and over again by
 12 our staff, so we would have those.
 13 Q. And I was asking some related questions
 14 earlier, but try again in light of the questions from
 15 Mr. Hanson.
 16 A. Okay.
 17 Q. Has -- setting aside the 2010 letter we talked
 18 about earlier, that set forth the factors from the -- the
 19 Detroit Edison letter that Mr. Hanson asked you about.
 20 A. Okay.
 21 Q. Has MDNR in any prior applicability
 22 determination utilized the WEPCo five factors to determine
 23 whether or not a project was routine or not and thus excluded
 24 from PSD program?
 25 A. In that specific detail, my recollection is

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1 no. This has come up recently in permit determinations. And
 2 so we would not have used this in this detail to my
 3 recollection on determinations. Have we used, read it and
 4 reviewed it and utilized the intent of it? Most likely. But
 5 the specificity of the five factors in that Independence
 6 Power & Light letter, for example, that is more recent
 7 occurrence.
 8 Q. Occurrence as of 2010?
 9 A. Yes.
 10 Q. Now, Mr. -- Mr. Hanson was -- was asking you
 11 about the WEPCo actual-to-projected-actual emission test.
 12 A. Yes.
 13 Q. Do you recall that?
 14 A. Yes.
 15 Q. But MDNR never adopted the
 16 WEPCo actual-to-projected-actual test, did it?
 17 A. That's correct.
 18 Q. So MDNR never had occasion to apply the
 19 WEPCo actual-to-projected-actual test, did it?
 20 A. In that definition, no. It is now as part of
 21 the reasonable possibility, the projected actual-to-actual.
 22 Q. And let's -- let's separate out.
 23 A. Okay.
 24 Q. We have the WEPCo applicability determination
 25 and WEPCo rule.

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1 A. Right.
 2 Q. Separately we have the reform rule.
 3 A. Yes.
 4 Q. And separate in time.
 5 A. Yes.
 6 Q. So when we get to the reform rule, which was
 7 adopted federally in late 2002 --
 8 A. Right.
 9 Q. -- and then adopted as a matter of state law
 10 by MDNR in late 2004 --
 11 A. Right.
 12 Q. -- that was the first occasion where MDNR had
 13 adopted as a matter of state law an
 14 actual-to-projected-actual test. Is that -- is that true?
 15 A. Yes, that's correct.
 16 Q. So before that time, there was not an
 17 actual-to-projected-actual test in its state rules?
 18 A. Right.
 19 Q. Now we spent considerable time this morning
 20 talking about the emission test that was applied by MDNR to
 21 determine construction permit applicability prior to the
 22 reform rule adoption in Missouri. Do you recall that line of
 23 questioning?
 24 A. Yes.
 25 Q. And we had worked through the definition of

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1 modification and the definition -- which referred to us to
 2 changes in potential emissions?
 3 A. Yes.
 4 Q. And we had looked at the definition of
 5 potential emissions.
 6 A. Right.
 7 Q. Do you recall that?
 8 A. Yes.
 9 Q. And Mr. Hanson was asking you a question along
 10 the lines of whether or not MDNR had utilized an
 11 actual-to-potential test. Do you recall that?
 12 A. Yes.
 13 Q. Now when we were -- when we were talking and
 14 looking at the PSD manual, the permitting manual --
 15 A. Which.
 16 MR. BONEBRAKE: Which exhibit was that, David?
 17 MR. LORING: Five.
 18 BY MR. BONEBRAKE:
 19 Q. This is probably the best way to do this.
 20 Let's go to Exhibit 5. Is there anything in Exhibit 5 that
 21 indicates that MDNR will apply an actual emission baseline to
 22 potential post-project emission test for purposes of
 23 determining permit -- construction permit requirement
 24 applicability?
 25 A. I would have to read the document to -- to --

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1 entirely to answer that with certainty. And this was a draft
 2 guidance document because I -- we didn't overly rely on this
 3 so I'm not exactly sure. It may or may not reference that,
 4 so I'm not sure what your question is.
 5 Q. Well, are you -- are you aware of the -- a
 6 test that would compare actual pre-project emissions against
 7 potential emissions of an emission unit?
 8 A. Yes.
 9 Q. Okay. And for any source that hasn't been
 10 operating at one hundred percent capacity in the baseline,
 11 that would always yield an emission increase, wouldn't it?
 12 A. I'm sorry, would you say that again?
 13 Q. For any source --
 14 A. Yes.
 15 Q. -- that had not been operating at one hundred
 16 percent capacity in the baseline period --
 17 A. Right.
 18 Q. -- application of an actual-to-potential test
 19 always yields an emission increase unless the source takes a
 20 synthetic minor permit; isn't that correct?
 21 MR. HANSON: Objection, lack of foundation,
 22 calls for hypothetical, calls for speculation.
 23 THE WITNESS: As I'm understanding the
 24 question, I would say yes.
 25

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1 BY MR. BONEBRAKE:
 2 Q. All right. And is it your testimony now that
 3 prior to the MDNR's adoption of the reform rule in late 2004,
 4 that it applied an actual-to-potential emission test to
 5 determine construction permit applicability?
 6 A. I'm hesitating only because as a permit writer
 7 and a permit reviewer, we didn't use those terms
 8 actual-to-potential, so we would review the project and the
 9 project would come in and we would look at the potential
 10 emissions of the project and that was the most important
 11 piece when we were determining it. And if the potential
 12 emissions of the project itself did not trigger PSD, we
 13 didn't do anything more. It was just the project emissions.
 14 That was the most important piece.
 15 Q. Okay.
 16 A. So that's why I'm tripping up on these terms
 17 and I apologize.
 18 Q. And I want us to use common terms because this
 19 is important --
 20 A. Right.
 21 Q. -- and I want to get this right.
 22 A. Right.
 23 Q. Now when you talk about project emissions --
 24 A. Yes.
 25 Q. -- my understanding from this morning was that

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1 you were referring to an increase in potential emissions of
 2 the unit as a result of the project. Did I understand that
 3 correctly?
 4 A. If -- if that -- that project, so -- it's so
 5 much easier to talk about with an application example. So
 6 you have an application that someone is adding a piece of
 7 equipment, those emissions of that piece of equipment is the
 8 project emissions at that time. If that is below the PSD
 9 threshold, we would go determine whether it was a minor
 10 permit or not and move forward with that. So I'm -- I'm not
 11 sure.
 12 Q. Okay. So I understand that that's -- that's
 13 addressing a scenario when you have a new emission unit --
 14 A. Right.
 15 Q. -- and you're assessing the impact of that in
 16 emission unit.
 17 A. Right.
 18 Q. And our scenario in this case and I would
 19 think many cases presented to MDNR is not a new emission
 20 unit.
 21 A. Right.
 22 Q. Instead we're talking about changes to an
 23 existing emission unit within an existing emission unit.
 24 A. Right, right.
 25 Q. And when we looked at -- and I'm looking again

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1 at page 15 of 53 of the manual, this morning we had a
 2 discussion about that and I'll refer you again to paragraph 3
 3 in section B on that page.
 4 A. Okay.
 5 Q. And the third sentence, potential of
 6 construction parens PC, end parens, should only include new
 7 equipment or additional capacity.
 8 A. Yes.
 9 Q. So the new equipment is the new emission unit
 10 scenario you just described; right?
 11 A. Right.
 12 Q. For existing units, where instead the question
 13 is a change within the existing unit, not a new emission
 14 unit?
 15 A. Right.
 16 Q. You have an increase in project caused by the
 17 project only if you have an increase in capacity to emit of
 18 the emission unit; correct?
 19 A. Yes.
 20 Q. So for units where the issue is a change to an
 21 existing emission unit, not the addition of a new unit --
 22 A. Yes.
 23 Q. -- the project would cause an emission
 24 increase within the meaning of the modification rules of
 25 MDNR, only if it increased the potential to emit of the

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1 emission unit; is that correct?
 2 A. Yes.
 3 Q. And that standard that I just mentioned to you
 4 was applied by MDNR for minor sources and major sources and
 5 at least up through adoption of the reform rule in 2004;
 6 correct?
 7 A. That's correct.
 8 MR. BONEBRAKE: Let's go off the record.
 9 VIDEOGRAPHER: We're off the record at 6:48
 10 pm.
 11 (A break was held.)
 12 VIDEOGRAPHER: We're back on the record. It's
 13 seven o'clock p.m.
 14 BY MR. BONEBRAKE:
 15 Q. Just a couple of final questions.
 16 A. Okay.
 17 Q. With respect to Exhibit 20, Mr. Hanson and I
 18 were both asking you some questions about this -- this
 19 exhibit. And the fourth page of the exhibit that's
 20 Bates-stamped AM00025889 --
 21 A. Yes.
 22 Q. -- is the construction permit fees worksheet.
 23 A. Yes.
 24 Q. And on this worksheet for this project, there
 25 are cumulative fees that are listed in the right-hand column;

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1 is that right?
 2 A. Yes; correct.
 3 Q. Would those cumulative fees, in fact, be
 4 billed to the source that requested the no permit required
 5 letter?
 6 A. Only if a permit was required can we charge
 7 fees.
 8 Q. So this is an accounting exercise that doesn't
 9 yield -- yield fees?
 10 A. Yes. That's why the total amount of bill, it
 11 says no fees. It's an internal tracking document to
 12 determine how many hours we spend on every project we do.
 13 Q. Okay. And my only other question relates to
 14 the no permit required letters that MDNR issues. And we've
 15 had some discussion today about MDNR's reliance upon the
 16 representations of sources who request those determinations.
 17 Is it -- is it true that if MDNR has any reason to believe
 18 that the representations of the source are inaccurate, that
 19 MDNR would not accept those representations?
 20 A. Yes.
 21 MR. BONEBRAKE: And I have no further
 22 questions.
 23 MR. HANSON: I have no further questions.
 24 MR. BONEBRAKE: Thank you.
 25 VIDEOGRAPHER: This concludes the deposition.

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1 It is 7:01 p.m., September the 18th and we're off the record.
 2 COURT REPORTER: Signature?
 3 MR. BONEBRAKE: Reserving review?
 4 MR. DUGGAN: Do you want to read this massive
 5 transcript before you sign it? Given the complexity, I would
 6 say yes. I would say yes.
 7 THE WITNESS: Okay.
 8 (End of Proceedings.)
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1 **CERTIFICATE OF DEPONENT**
 2
 3 I hereby certify that I have read and examined the
 4 foregoing transcript, and the same is a true and
 5 accurate record of the testimony given by me.
 6 Any additions or corrections that I feel are
 7 necessary, I will attach on a separate sheet of
 8 paper to the original transcript.
 9
 10 _____
 11 Signature of Deponent
 12
 13 I hereby certify that the individual representing
 14 himself/herself to be the above-named individual,
 15 appeared before me this ____ day of _____,
 16 2013, and executed the above certificate in my
 17 presence.
 18
 19 _____
 20 NOTARY PUBLIC IN AND FOR
 21
 22 _____
 23 County Name
 24
 25 MY COMMISSION EXPIRES:

1 CERTIFICATE OF REPORTER
 2 STATE OF MISSOURI)
 3) ss:
 4 COUNTY OF GASCONADE)
 5

6 I, JENNIFER L. LEIBACH, Registered
 7 Professional Reporter, Certified Realtime Reporter, and
 8 Certified Court Reporter, CCR #1108, the officer before whom
 9 the foregoing deposition was taken, do hereby certify that
 10 the witness whose testimony appears in the foregoing
 11 deposition was duly sworn by me; that the testimony of said
 12 witness was taken by me to the best of my ability and
 13 thereafter reduced to typewriting under my direction; that I
 14 am neither counsel for, related to, nor employed by any of
 15 the parties to the action in which this deposition was taken,
 16 and further that I am not a relative or employee of any
 17 attorney or counsel employed by the parties thereto, nor
 18 financially or otherwise interested in the outcome of the
 19 action.
 20

21 _____
 22 Jenni Leibach, CCR, RPR, CRR
 23
 24
 25

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Case No. EF-2024-0021

SCHEDULE CME-r9

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

Ameren Missouri
Response to MPSC Staff Data Request
MPSC Case No. ER-2011-0028
In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File
Tariffs Increasing Rates for Electric Service Provided to Customers in the
Company's Missouri Service Area

Data Request No.: MPSC 0257 – Lisa Hanneken

Please provide a listing and the dates of completion for each and all Power Plant outages and upgrades from 1/1/09 to present which a) has provided a change in the amount of energy the power plant is expected to produce on a going forward basis, b) changed the future outage or maintenance schedule c) provided a cost reduction or increase. For each a, b, and c, provide a detailed discuss of the impact of such a change (i.e. number of MW change, number of months/years maintenance was deferred, amount of cost difference, and reasons for each). This data should be provided on a separate power plant basis for each and all power plant owned and operated by Ameren Missouri.

RESPONSE

Prepared By: David Bullard
Title: Managing Supervisor, Project Controls
Date: December 15, 2010

HIGHLY CONFIDENTIAL

See attachment for requested data.

remainder of
SCHEDULE CME-r2
HAS BEEN DEEMED
CONFIDENTIAL
IN ITS ENTIRETY

Case No. EF-2024-0021

SCHEDULE CME-r11

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY