

**EXHIBIT NO. ___(RG-13HC)
DOCKET NO. UE-11___/UG-11___
2011 PSE GENERAL RATE CASE
WITNESS: ROGER GARRATT**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

**Docket No. UE-11___
Docket No. UG-11___**

**TWELFTH EXHIBIT (HIGHLY CONFIDENTIAL) TO THE
PREFILED DIRECT TESTIMONY OF
ROGER GARRATT
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**REDACTED
VERSION**

JUNE 13, 2011



Lower Snake River Wind Project

Approval of Lower Snake River Wind Project, Phase I

PSE Board of Directors

May 5, 2010



Puget Sound Energy

Report to the Board of Directors

Approval of Lower Snake River Wind Project, Phase I

May 5, 2010

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REPORT TO THE BOARD OF DIRECTORS

1. EXECUTIVE SUMMARY

The purpose of this Report to the Board of Directors ("Report") is to recommend approval of the construction of Phase I of the Lower Snake River Wind Power Facility ("Phase I", or the "Project"), in accordance with the Resolutions set forth on Exhibit A. Phase I, slated to achieve its Commercial Operation Date ("COD") in April 2012, is a 343 MW electric generating facility to be built in southeastern Washington at an all-in cost of approximately \$848 million. This Report summarizes the commercial aspects of the Project and describes the analysis of its costs and benefits conducted by Puget Sound Energy's ("PSE's", or the "Company's") long-term resource planning and acquisition teams.

Determination of Need

PSE's need for new generation resources, including specific renewable energy resources, is set forth in the 2009 Integrated Resource Plan ("IRP"). The IRP considered expected customer loads and the impact of state and federal laws and regulations on the Company's generation portfolio. The 2009 IRP recommended that PSE obtain 300 MW of new wind generation by the end of 2012. Following the completion of the IRP, in 2010 a request for proposals was issued to prospective developers and other project proposers.

Identification of Alternatives

The Company has conducted its analysis of the Project's attributes in conjunction with its review of renewable energy responses to the 2010 Request for Proposals for All Generation Resources ("RFP") and to other non-solicited proposals. These alternatives include offers for owned wind and biomass projects, and offers to purchase the output of wind, solar and biomass electric generation facilities.

Economic Analysis

Quantitative and qualitative analysis demonstrates that Phase I is the lowest reasonable cost alternative to meet the Company's need as defined by the IRP and has a reasonable risk portfolio. The 25-year levelized pro forma cost of the Project is \$ [REDACTED] per megawatt hour ("MWh").

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Decision and Execution

Management recommends the Board (1) approve the construction of Phase I of the Lower Snake River Wind Project and (2) authorize the execution of the applicable contracts necessary to implement the construction and operation of the Project.

2. PURPOSE

This Report describes Phase I of the proposed Lower Snake River Wind Project¹. The Report describes the construction and management plans for the Project, its expected financial performance, and the associated risks and risk mitigation plans. A detailed comparison of the Project against currently available market alternatives support the execution of the Project as proposed. The report concludes with the recommendation to authorize construction of Phase I of the LSRWP for a COD in April 2012.

3. PROJECT DESCRIPTION

The Project is a commercial wind generation facility with 149 Siemens SWT 101 2.3 MW Wind Turbine Generators ("WTGs") generating 343 MW of nameplate capacity on 39,600 acres of leased property in Garfield County, Washington. Project elements include wind turbine generators erected on tubular steel towers with foundations and individual turbine step-up transformers. Supporting infrastructure will include access roads, underground and overhead electric collection system lines, step-up substations, transmission lines, microwave communications, permanent meteorological towers, an operations and maintenance center, and temporary construction access and staging areas.

The Project (see Figure 1) will be interconnected to the Little Goose-Lower Monument transmission line owned and operated by the Bonneville Power Administration ("BPA"). In addition to Project-specific substations, a new 500/230 kilovolt ("kV") BPA substation (the "Central Ferry Substation") will be constructed on 50 acres in the northern section of the Project to interconnect the Project to the BPA system. The Central Ferry Substation will be designed, constructed, and operated by BPA and sized to accommodate future phases of LSRWP and additional regional energy development.

¹ Throughout this report, "Phase I" or "Project" refers to the 343 initial phase of the Lower Snake River Wind Project. "LSRWP" refers to the entire wind development in Columbia and Garfield Counties, Washington, which would ultimately support up to 1,250 MW.

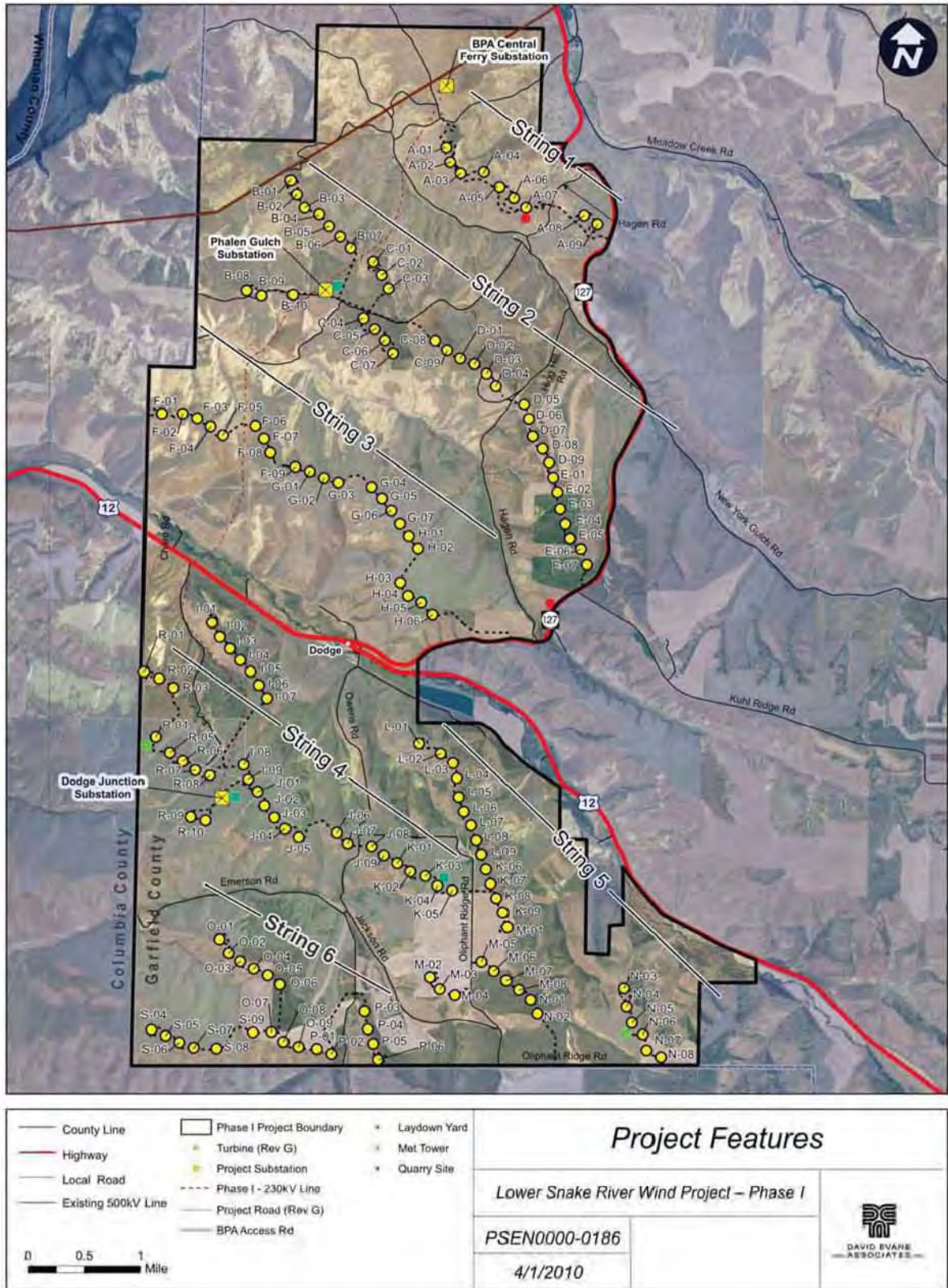


Figure 1. Phase I, Lower Snake River Wind Project.

4. DETERMINATION OF NEED

To plan the long-term generation resources to acquire or build as part of a least cost generation portfolio, the Company evaluates the expected need of its retail customers. Long-term planning and anticipated customer need is analyzed through the Integrated Resource Plan (“IRP”) which the Company completes every two years. The IRP considers existing state and federal laws and regulations regarding renewable resources along with many other relevant factors.

The Company’s 2009 IRP recommended the following resource additions:

Table 1. Cumulative additions for the lowest reasonable cost portfolio, 2009 IRP.

	2012	2016	2020	2029
Demand-Side Resources	205	597	917	1064
Wind	300	600	1000	1100
Biomass	0	0	20	40
CCCT w/ Duct Firing	275	275	825	1100
Peakers	160	160	480	1760

Additional review of the Company’s IRP results and market drivers for renewable resources is contained in Exhibit N. This recommendation to the Board of Directors calling for a 343 MW Phase I Project is generally consistent with the IRP recommendation. The increase beyond the IRP recommendation is driven, in part, by project optimization considerations. Further discussion of this topic, including quantitative analysis, is contained in Exhibit M.

5. IDENTIFICATION OF ALTERNATIVES

5.1. RENEWABLE INCENTIVES

Federal tax incentives have a substantial effect on wind power economics and market conditions. Historically, the Production Tax Credit ("PTC"), a federal tax credit of approximately 2.2 cents per kWh, has been the primary federal incentive for wind energy since 1992.

In February 2009, Congress passed the American Recovery and Reinvestment Act ("ARRA") which includes additional renewable incentives. The ARRA enables owners of wind energy projects to elect an Investment Tax Credit ("ITC") equal to 30% of the qualified investment. Section 1603 of the ARRA allows project owners to elect a cash grant ("Grant") from the U.S. Department of Treasury ("Treasury") in lieu of claiming the PTC or ITC.

5.2. RENEWABLE DEVELOPMENT STRATEGY

In response to escalating prices and decreasing purchase opportunities, the Company initiated a strategy in late 2006 to manage the cost of acquiring new renewable generation resources by taking positions in projects earlier in the development process, thereby reducing developer premiums and managing costs for customers. With this strategy, the Company sought quality opportunities to acquire early stage development projects that could be brought online at a lower cost for the benefit of its customers.

By entering the development chain early, PSE intended to realize significant capital cost savings through the remaining phases of development, procurement, construction and commissioning. In addition to avoiding higher developer fees, capital costs savings result, in part, from PSE's access to lower cost capital versus that of a typical wind developer. Over the last year, other utilities in the Pacific Northwest, including PacifiCorp and Portland General Electric Company, have adopted a similar development strategy.

5.2.1. Purchase of RES Interest

The Company entered into a Joint Development Agreement ("JDA") with RES America Developments, Inc. ("RES Development") for the purpose of developing the Lower

Snake River Wind Project. As approved by the Energy Management Committee (“EMC”) in May 2008, PSE negotiated the purchase of a 50% interest in the Lower Snake River Project, closing the transaction in December 2008. Following RES Development’s decision to sell its remaining 50% interest, the Company purchased the remaining interest in August 2009.² At that time, PSE became the sole owner of the LSRWP.

5.3. LOWER SNAKE RIVER DEVELOPMENT PLAN

The 2009 IRP calls for 300 MW of wind power to be brought on line by December 2012. Subsequent to the completion of the IRP analysis, recent market and policy developments favor early development of wind resources. As detailed in Exhibit M, these include:

- 1) The Treasury Grant requires qualifying projects to be under construction by the end of 2010 and achieve commercial operation by December 31, 2012.
- 2) Washington State provides a full sales tax exemption through June 30, 2011 for systems generating power with renewable technologies including wind. After that date and through 2013, the exemption is reduced to cover 75% of the sales tax. After 2013, the exemption expires.
- 3) The financial crisis of late 2008 and early 2009 reduced the number of tax equity participants in the wind finance market place, significantly reducing turbine orders in supplier pipelines due to the inability of many developers to obtain necessary financing. This has created downward price pressure on wind turbine generators.

Quantitative analysis (see Exhibit M) supports the acquisition of as much as 600 MW wind power by 2012 if project and construction logistic constraints are ignored. However, as detailed in Exhibit M, the following factors limit Phase I to 343 MW:

- 1) PSE has obtained an unappealable Conditional Use Permit (“CUP”) in Garfield County. This permit grants PSE all the necessary rights to construct the Project in Garfield County. The CUP in neighboring Columbia County is expected in late 2010 and could be delayed. The 343 MW Project is located entirely in Garfield County.
- 2) In order to qualify for Section 1603 Treasury Grants as the law is currently in effect; qualifying construction must start in 2010 and be

² The Company’s purchase of RES’s remaining 50% interest in the LSRWP was approved by the Board on July 27, 2009.

completed by the end of 2012. The Phase I project has been conceived such that it can meet Treasury guidelines for start of construction (see Exhibit S) and sized at 343 MW to ensure completion by the end of 2012, with eight months to spare.

For a detailed summary of the LSR Development Plan quantitative and constraint analysis, see Exhibit M.

5.4. DEVELOPMENT OF LOWER SNAKE RIVER PHASE I

5.4.1. Wind Resource Assessment

PSE engaged DNV-GEC to develop and implement a detailed wind resource assessment program for LSRWP and LSRWP, Phase I, as described in detail in Exhibit P. The wind resource assessment findings for Phase I are summarized in Table 2.

Table 2. Phase I Wind Resource Values.

Phase I Resource Assessment	Value
P5 Net Energy (GWh/yr)	
P5 Net Capacity Factor	
P95 Net Energy (GWh/yr)	
P95 Net Capacity Factor	
P50 Net Energy (GWh/yr)	
P50 Net Capacity Factor	

The LSRWP Phase I estimated net capacity factor is [REDACTED] % compares favorably to the PSE's Hopkins Ridge Wind Project (net capacity factor inception to date is [REDACTED] %) located adjacent to the LSRWP and the PSE owned Wild Horse Wind Project (net capacity factor inception to date of [REDACTED] %), which is near Ellensburg, Washington.

5.4.2. Real Estate

PSE has secured leases providing all rights necessary to construct and operate all 343 MWs of Phase I. The Project covers 39,600 acres of leased land in western Garfield County, Washington. Phase I land uses are agricultural purposes including dry land wheat, grazing and federal Conservation Reserve Program grass lands.

The real estate program is described in Exhibit I.

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5.4.3. Permitting

PSE has completed all necessary environmental review and public process for the Project and has obtained a Conditional Use Permit ("CUP") from Garfield County. The CUP is final and not subject to further appeal and provides all rights necessary to construct and operate the Project.

Exhibit H describes the permitting program.

5.4.4. Community and Communications

The Lower Snake River Project enjoys considerable local support from government leaders, the business community and the majority of residents of both Garfield and Columbia counties. These supporters view wind energy as a vital and unprecedented opportunity to enhance the local economy through the creation of jobs, addition of new tax revenues and the diversification and stimulation of local businesses and services.

Supporting groups include a citizen-based group promoting economic diversity, the regional economic development association, and the chambers of commerce of both counties.

Opposition to wind energy is represented by a limited group of residents, primarily in Columbia County, who view the wind turbines as visually intrusive or as a source of unwanted noise. However, a settlement has been reached with the leading opponents of the LSRWP, who have agreed to withdraw their objection in consideration for changes in proposed turbine siting near their property.

Exhibit J describes the community and communications strategy.

5.4.5. Engineering and Construction

RES America Construction Inc. ("RES") will serve as the contractor of the "balance of plant" of the Project, pursuant to a Balance of Plant Agreement (the "BOP Contract") which covers the civil construction of all roads, site grading, wind turbine foundations, underground electrical collection systems, substations, and 230 kV project transmission lines. The BOP Contract utilizes "open book" pricing, whereby PSE and RES jointly evaluate subcontractor bids and come to an agreement on which to select.

Once selected, pricing becomes fixed and RES is responsible for performance, quality of work, and schedule in the same way as a conventional, fixed-price contract.

In order to facilitate BPA's schedule on its construction of the Central Ferry Substation, PSE recently authorized RES to perform limited geotechnical work and access road construction.

Certain engineering services necessary for the design of the Project have been performed for PSE by Burns & McDonnell ("BMcD"). Specifically, BMcD is providing final design services for project infrastructure including roads, substations, and Project transmission systems.

5.4.6. Wind Turbine Generator Selection and Contracts

The Company conducted a review of established major market providers of WTG technology and requested proposals from [REDACTED] Siemens, [REDACTED] and [REDACTED]. Following a detailed technical review, commercial comparisons, and due diligence the Company selected the Siemens SWT 101 2.3 MW WTG for Phase I. Exhibit O describes the selection process and due diligence proceedings supporting the Company's selection.

PSE initiated negotiations for the purchase of 149 Siemens WTG units in October 2009, and terms of the Turbine Supply Agreement ("TSA") and Service and Maintenance Agreement ("SMA") are described in Exhibits D and E. Key terms of the TSA are:

- 1) Siemens will deliver and erect 149 SWT 101 2.3 MW WTGs, beginning in March 2011.
- 2) PSE will pay \$ [REDACTED] pursuant to the TSA payment schedule.
[REDACTED]
- 3) Assuming the TSA is executed in May 2009, PSE will pay [REDACTED]
[REDACTED]
- 4) Siemens will provide a full warranty of all parts and installation for five years from turbine commissioning.

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The SMA obligates Siemens to provide all operations and maintenance (“O&M”) services for the Phase I units for five years following turbine commissioning. Key terms of the SMA are:

- 1) PSE will pay a fixed fee per WTG which equates to an annual amount of \$ [REDACTED] per WTG, adjusted annually after the first year to an inflation index.
- 2) The fee covers all labor, parts, equipment and consumables.
- 3) Siemens will provide and maintain all spare parts during the warranty period.
- 4) Siemens warrants [REDACTED] % availability calculated annually on a per turbine basis.

5.4.7. Interconnection, Transmission, and Integration

The Lower Snake River Wind Project will interconnect to the Bonneville Power Authority (“BPA”) transmission system at the new Central Ferry 230/500 kV substation. BPA will construct Central Ferry under the terms and conditions of the Large Generator Interconnection Agreement (“LGIA”) described in Exhibit E. Key terms of the LGIA include:

- 1) PSE will reimburse the BPA an estimated \$102 million for the construction of the new Central Ferry Substation, the cost of which will be deferred as a regulatory asset for financial reporting and ratemaking purposes.
- 2) PSE will receive from BPA approximately 97.5% of the substation cost in the form of transmission credits paid back over the life of the Project.
- 3) The LGIA provides PSE with limited contractual remedies and no liquidated damage provisions if BPA exceeds the planned budget or does not perform per the agreed schedule.
- 4) If BPA exceeds its estimated construction budget, BPA may charge PSE without PSE review or approval for an unlimited period of time following commercial operation of the facility to cover the cost overruns.

Project output will be placed in the BPA Balancing Authority (“BA”) and is subject to an integration tariff. BPA has established an integration tariff of \$5.89/MWh that is subject to adjustment in future, biennial BPA transmission rate case proceedings.

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However, PSE has the option to move the Project to its own BA. Interconnection, transmission, and integration issues are explored in detail in Exhibit Q.

5.4.8. Budget & Schedule

The all-in budget for Phase I is \$848,041,000 for the period through commercial operation and final completion in 2012. This includes \$ [REDACTED] allocated to the Project from monies already spent through 2009 and equates to \$2,475/kW installed. The all-in budget includes development costs (development rights, interconnection costs, and pre-paid transmission expense) allocated to Phase I, development costs that are specific to Phase I, and the costs to construct Phase I. Table 3 shows the total Phase I budget.

Table 3. LSRWP, Phase I Capital Budget, 2010-2012.

	\$000's	\$/kW	Percent of Total
DEVELOPMENT BUDGET			
Development Rights			
PSE Allocated Development Costs			
Interconnection Costs			
Prepaid Transmission Expense			
TOTAL DEVELOPMENT BUDGET			
CONSTRUCTION BUDGET			
Wind Turbine Generators			
TSA Contract Price			
Anticipated TSA Options			
Balance Of Plant			
O&M Building			
Step-up Transformers			
RES Contract Price			
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead			
Project Communications			
Start-up Costs			
Sales Tax			
Contingency			
TOTAL CONSTRUCTION BUDGET			
AFUDC			
TOTAL ALL-IN CAPITAL COSTS	848,041	2,475	100.0%

Exhibit L details the capital budget and explains each cost category.

A detailed Project schedule is contained in Exhibit G.

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5.4.9. Project Pro Forma

The pro forma for the Project models the 25-year project-specific revenue requirement to recover all capital investment made during development and construction of Phase I and the subsequent 25 years of O&M expense required to operate the facility and transmit the energy to PSE's territory. The 25-year levelized cost of the Project is \$ [REDACTED] per megawatt hour ("MWh"), which includes the development and construction budget. Development costs for the Project include both the pro rata allocation of the costs to develop the entire LSRWP and the Phase I specific costs to negotiate the TSA and SMA, as well as the BOP Contract agreement (all of which are described in Exhibit E). The methodology and rates used for allocating LSRWP development costs to Phase I is described in Exhibit L. The construction budget includes the remaining costs necessary to construct the plant and place it into commercial operation, including WTGs, the balance of plant, PSE construction management and AFUDC. These development and construction capital costs are described in more detail in Exhibit L.

The levelized cost metric also includes the 25-year O&M expenses for Phase I, which include the Siemens SMA, land lease payments, PSE staff, property tax, insurance, environmental compliance, and transmission expense. The levelized cost metric includes the \$ [REDACTED] million of prepaid transmission expense allocated to Phase I from BPA's construction of the Central Ferry substation. This expense (and interest earned on it) serves to offset a portion of the first 14 years of point-to-point transmission expense. The construction of Central Ferry and the prepaid transmission expense are described further in Exhibit Q, while Exhibit L describes the methodology by which it flows through the revenue requirement.

The pro forma assumes perfect rate-making treatment, meaning the Project is placed in rates upon commercial operation. In practice however, there may be a lag between the time Phase I achieves commercial operation and the time it is included in rates. Exhibit K describes the timing and different rate case filings that may be used place Phase I into rates. If there is a lag, PSE will file a notice of deferral, under RCW 80.80.06, with the Washington Utilities and Transportation Commission ("WUTC") and, subject to WUTC review and approval of the Project, will recover those costs over a to-be-determined length of time (Exhibit K). The pro forma also assumes the receipt of a Treasury Grant, which is a 30% cash grant for qualifying capital expenses of

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renewable projects. PSE filed for and received a Treasury Grant for the Wild Horse Expansion. The application to the U.S. Treasury for the Wild Horse Expansion specified that the grant would be amortized over 10 years and the WUTC approved the Accounting Petition filed in 2009 requiring that the Treasury Grant be amortized over that same period (Exhibit T). Consistent with current methodology and approvals for the Wild Horse Expansion, this projection assumes the 30% Treasury Grant for the Project will be amortized over 10 years and thereby lower rates for that period, consistent with the approach taken for the Wild Horse Expansion. The Treasury Grant and flow through methodology is described further in Exhibit U and V.

Certain legislation has been recently proposed in Congress that essentially would convert the Treasury Grant into a refundable tax credit and extend the tax incentive to projects placed in service prior to the end of 2012 (even if construction began after 2010). The proposed legislation as presently written would eliminate the requirement of certain utilities to normalize such tax incentive, essentially depending on whether they operate in states with a renewable portfolio standard requirement (like PSE in Washington). If the proposed legislation were to be enacted, PSE would not be required to normalize such tax incentive and it is possible that the WUTC would seek to have PSE pass such benefit through to customers on a more accelerated basis than 10 years. At this point, it is unclear what the prognosis is for the passage of the proposed legislation or its timing.

5.5. 2010 REQUEST FOR PROPOSALS

PSE issued an all-source Request For Proposals (“RFP”) in January 2010 and received responses to it in March 2010. Table 4 lists the renewable proposals PSE received by technology.

Table 4. Renewable Resource Responses to the 2010 RFP by Technology.

Resource Technology	Proposals	Offers	MW
Biomass	9	10	590
Solar	1	1	10
RECs	2	6	n/a
Wind	21	31	3,776
Total	33	48	4,376

Many proposals contained multiple offers (such as two different pricing options for a Power Purchase Agreement (“PPA”), or a choice between a PPA and ownership of a

project). PSE received proposals for a total of 4,376 MW from renewable resources, including 3,776 MW of wind power.

6. ANALYSIS

A cross-departmental evaluation team at the Company, utilizing consistent analytical methods developed for this and prior RFPs, subjected Phase I and all of the 2010 renewable resource RFP offers to a comparative analysis. Such methods, including both quantitative and qualitative factors, have been subjected to WUTC scrutiny in previous cost-recovery filings.

6.1. COMPARATIVE ANALYSIS

Comparative analysis (see Exhibit N) of Phase I and the market alternatives and LSR Phase I is summarized in Table 5.

As described in Exhibit N, Phase I is the lowest cost alternative to meet the Company need.

Table 5 (Part 1 of 2). 2010 RFP Phase II Results

Selection	RFP ID	Proposal ²	Fuel Type	P50 Annual RECs ^{3,7}	COD	Rationale ¹	Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh ⁴	Scenario Selection of 5
Self-Build and Unsolicited Proposal										
Recommended to construct	N/A	Lower Snake River Phase 1 343 MW Ownership	Wind		2012	Comparison to RFP proposals confirms recommendation to construct. Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project is in advanced stage of development with key development items completed. PSE has confidence in the costs, mitigation of risks, and schedule execution associated with the project. Project is construction ready and is well-positioned to capture Treasury grant.	0.09	68.8		4
Candidate Shortlist	N/A		Wind		2012	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project holds firm transmission rights, but does not have permit or interconnection agreement. Further investigation is necessary to explore potential schedule and price risks.	0.14	35.5		5
RFP Proposals										
Candidate Shortlist	10059		REC Only		2012	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Proposal partially meets renewable need with a small volume of RECs. Further investigation is necessary to explore commercial terms and credit support issues.	2.26	14.2		1
Candidate Shortlist	10009		Biomass		2013	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project has secured a portion of the fuel supply. Further investigation is necessary to explore risks associated with fuel pricing, availability for stand-alone operation, and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.13	19.2		2
Candidate Shortlist	10025		Biomass		2013	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Seller assumes fuel cost risk. Project has secured 100% of fuel supply through existing operations of project partners. Further investigation is necessary to explore risks associated with achievable capacity factor and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.11	19.7		2
Candidate Shortlist	10163		Biomass		2013	Project economics are not as favorable as alternatives in the Phase 2 evaluation; however, project developer is experienced and backed by known companies with resources to achieve successful execution. Thus, further exploration of the proposal is recommended. Further investigation is necessary to explore risks associated with fuel supply and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.05	20.2		1

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Table 5 (Part 2 of 2). 2010 RFP Phase II Results

Selection	RFP ID	Proposal ²	Fuel Type	P50 Annual RECs ^{5,7}	COD	Rationale ¹	Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh	Scenario Selection of 5
Not Selected	10075	[REDACTED] Ownership	Wind	[REDACTED]	2011	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Negotiation and execution of definitive agreements within required timeframe is aggressive. Commercial success at proposed price offer may be unrealistic given outstanding development items to be completed. Construction may not commence in time to capture Treasury grant. Winter construction schedule and interconnection facilities construction schedule places the proposed Commercial Operation Date at risk.	0.05	18.6	[REDACTED]	4
Not Selected	10117-a	[REDACTED] 20-yr PPA	Wind	[REDACTED]	2012	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Commercial success at proposed price offer may be unrealistic because the development schedule may not enable the project to capture Treasury grant. The proposed BPA interconnection construction schedule places the proposed Commercial Operation Date at risk, which also increases price risk if the project fails to achieve federal tax incentive dates. Transmission rights have not been secured.	0.01	3.2	[REDACTED]	1
Not Selected	10117-b	[REDACTED] 20-yr PPA	Wind	[REDACTED]	2012	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Future PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols. Construction may not commence in time to capture Treasury grant.	(0.03)	(8.7)	[REDACTED]	2

NOTES:

- Figure 2 to Exhibit N provides a summary of commercial, transmission, community, environmental and credit analysis.
- With the exception of the REC Only proposal, all quantitative evaluations rely on the assumption that the Treasury Grant 5% safe harbor provision will be met by 12/31/2010. Should a developer not meet this provision, there is risk that the price proposed will increase.
- All projects on the list are expected to qualify for a 1.2 REC multiplier by using 15% apprenticeship labor for construction work.
- 2016 RPS requirement is estimated to be 2,115,775 RECs. PSE's existing resource currently supplies approximately 1,427,186 RECs.
- An additional 688,589 RECs are needed to meet the 2016 need.
- PSE's qualitative development plan analysis determined that 600 MW or more of wind should be acquired at this time. See Exhibit M.
- 600 MW of wind is equivalent to 1,576,800 RECs per year.
- REC only projects cannot be evaluated using Levelized Cost as there is no energy component; levelized costs shown are all PSM I results, which calculates levelized costs slightly lower than PSE's Project profoma
- Quantitative evaluation based on COD in 2012.

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REDACTED VERSION

7. DECISION AND EXECUTION

7.1. CONSTRUCTION OF THE PROJECT

Subject to Board approval on May 5, 2010, PSE will execute the following contracts:

- 1) Siemens TSA contract for the purchase and erection of 149 SWT 101 2.3-MW WTGs for \$ [REDACTED]
- 2) Siemens SMA contract for the service and maintenance of the same turbines for five years for \$ [REDACTED] in the first year and increasing in subsequent years by an inflation index.
- 3) RES Construction BOP contract for approximately \$ [REDACTED] for construction of roads, foundations, substations, transmission line and collection systems supporting installation of 149 Siemens WTGs.
- 4) LGIA contract for the interconnection of LSRWP, Phase I to the BPA transmission system at Central Ferry Substation for \$102,200,000. BPA has determined that 97.5% of this cost will be reimbursed to PSE over the life of the project as transmission credits for system upgrades.

Construction of Phase I (see Exhibit G) is expected to proceed according to the milestone schedule shown in Table 6.

Table 6. Milestone construction schedule, LSRWP, Phase I.

Date	Milestone
May 2010	Board Approves Construction and Operation of LSRWP, Phase I
May 2010	RES Construction mobilizes and starts construction on roads and WTG foundations
May 2010	PSE procures Project substation transformers
November 2010	Roads, foundations, and collection system for 149 WTG complete
March 2011	First WTGs arrive on site
August 2011	Begin pre-Commissioning WTGs
December 2011	Central Ferry Substation energized
April 2012	Phase I achieves commercial operation

7.2. FINANCING

The Project will be financed consistent with past utility financing practices, employing a combination of funds from operations, short-term debt drawn from the Company's

[REDACTED]
[REDACTED]
[REDACTED]

capital expenditure facility, long-term debt and, as needed to balance the debt, equity provided from PSE's parent Puget Energy. Puget Energy's source of equity is expected to be draws under Puget Energy's \$1 billion capital expenditure facility.

7.3. ACCOUNTING TREATMENT

The Project will be accounted for pursuant to the applicable accounting rules of the FERC and WUTC. For modeling purposes and valuation, the overall useful book life of the Project is estimated to be 25 years.³

A discussion of rates and accounting issues is contained in Exhibit K.

7.4. RATE MAKING TREATMENT

PSE will seek rate recovery for Phase I in filings made with the Washington Utilities and Transportation Commission ("WUTC") in 2010 and/or in 2011. The filings may be associated with a General Rate Case ("GRC") or Power Cost Only Rate Case ("PCORC"). Construction is estimated to be completed with a Project COD prior to April 15, 2012. The filings may occur before all construction costs are known with certainty. If necessary, cost estimates may be updated during the filing.

The Company may choose to seek rate recovery via the GRC or PCORC mechanisms and these approaches have different timelines. Table 7 lists the major milestones associated with each approach.

Table 7. Rate recovery options and timelines for Phase I.

GRC Option		PCORC Option	
Date	Milestone	Date	Milestone
Q3/Q4 2010	PSE files GRC	Q3/Q4 2010	PSE files GRC
Q2/Q3 2011	WUTC order with new rates		
Q3/Q4 2011	PSE files GRC with rate recovery for LSRWP, Phase I	Q3/Q4 2011	PSE files 2011 PCORC with rate recovery for LSRWP, Phase I
Q3/Q4 2012	WUTC order with new rates	Q2 2012	WUTC order with new rates

³ In the 2006 GRC, PSE agreed to use a 25 year book life for accounting and ratemaking purposes as recommended by WUTC staff until PSE completes a full depreciation study.

Concurrent with the rate filing, PSE may also file an accounting petition with the WUTC to request a cost deferral mechanism. Cost deferral is needed because the existing Power Cost Adjustment (“PCA”) mechanism does not allow recovery of fixed costs and limits the recovery of variable costs to the lesser of the actual variable costs or the PCA baseline rate. PSE will request deferral of all PCA defined fixed costs, similar to the approach taken with the acquisition of the Mint Farm generating facility and its deferral under RCW 80.80.06. Fixed costs to be deferred include the following: fixed production operations and maintenance, depreciation, allowed return on ratebase, and other expenses such as property taxes and insurance.

The General Rate Case would seek prudence determination for the Project as well as other potential resource acquisitions or contract restructurings.

A discussion of rates and accounting issues is contained in Exhibit K.

7.5. MANAGEMENT AND OPERATION OF THE PROJECT

Effective on the date of Project COD, Siemens will provide the day-to-day service, maintenance and warranty coverage for the WTGs pursuant to the TSA and the SMA. The SMA has a five-year term and contains terms customary for such agreements in the electric industry for wind energy facilities. The scope of services under this agreement includes diagnostic and maintenance services, the supply of consumables, and parts replacement for the WTGs. The annual cost payable to Siemens under the SMA is \$ [REDACTED] per turbine including Washington State sales tax. PSE will retain responsibility for site management and the O&M of the BOP systems (i.e., the portion of the facility excluding the WTGs), including the collection system, Project roads, the site substation, and the interconnecting transmission line. PSE may provide some of its O&M services via third-party subcontractors. The Project will utilize a new O&M building housing the PSE plant manager and Siemens employees as well as the parts and consumable supplies. The new O&M building will be located in Pomeroy, approximately 10 miles east from the Project.

To the greatest extent possible, the Project is designed to facilitate consistent management with the existing Hopkins Ridge facility. WTGs and data system, main transformer and substation, roads, foundations, crane pads, electrical collection cable, and storm water management features are all substantially similar, or identical, to that

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designed for the existing Hopkins Ridge project. Owing to the expanse and topography of the LSRWP project phases, six additional PSE operations employee will be required to properly manage and monitor the Project and the cost of such personnel are included in the pro forma. The operations management organization is shown in Exhibit F.

The TSA and SMA provide for both penalties and incentives for Siemens. During the five-year term of the SMA, Siemens guarantees an average availability of [REDACTED]. Should the actual availability fall below this level, liquidated damages will be paid to PSE, calculated based on defined formulae within the SMA. Likewise, Siemens is paid an incentive if availability exceeds [REDACTED] during any twelve-month period.

Subsequent to the five-year term of the Service Agreement, PSE may (i) assume responsibility for the O&M of the entire Project, including the WTGs, (ii) execute a service renewal agreement with Siemens, or (iii) contract services from one or more third-party O&M providers. It is assumed that WTG maintenance requirements will increase over time, so that O&M cost is projected to grow over the life of the Project.

Estimates of future Project expenses are reflected in the financial pro forma in Exhibit L.

7.6. INSURANCE PROGRAM

7.6.1. Construction Period Insurance Program

During the construction period, Builder's All-Risk coverage (physical damage to the plant during construction) will be provided in one of two ways: (1) PSE will endorse coverage under its existing property insurance program or (2) PSE will purchase a project-specific policy. PSE anticipates purchasing the Builders All-Risk coverage with a \$100,000 deductible.

During the construction period, the TSA requires Siemens to carry the following insurance coverages:

- 1) Workers' Compensation and Employers Liability Insurance
- 2) Commercial General Liability Insurance with policy limits of \$1,000,000 per occurrence.

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- 3) Excess/Umbrella Liability Insurance with policy limits of \$9,000,000 per occurrence.
- 4) Commercial Automobile Liability Insurance with policy limits of \$1,000,000 per occurrence.
- 5) Transit Insurance from shipper's point of shipment to the delivery point.

7.6.2. Operating Period Insurance Program

Once construction is complete and the Project commences operation, it will be added to PSE's existing property insurance program for the full replacement value, subject to a \$2,000,000 per occurrence deductible and policy limits and sublimits. In addition, the Service Agreement will require that Siemens maintain the following insurance coverage:

- 1) Workers' Compensation and Employers Liability Insurance.
- 2) Commercial General Liability Insurance with policy limits of \$1,000,000 per occurrence.
- 3) Excess/Umbrella Liability Insurance with policy limits of \$9,000,000 per occurrence.
- 4) Commercial Automobile Liability Insurance with policy limits of \$1,000,000.

7.7. RISK ANALYSIS

The Company maintains an Enterprise Risk Management Policy ("ERM") as part of its Corporate Policy Manual. Pursuant to that policy, and consistent with past resource acquisition activity, PSE staff identified incremental risks associated with Phase I, which vary in nature and extent based on the stage of the Project.

PSE has prepared a detailed description of the principal risks and identified mitigation plans for each of the pre-construction, construction, and operation phases of the Project. Management believes that the mitigation plans in place adequately balance the risks identified in this process. Exhibit W provides a summary of these risks and mitigation plans.

7.8. SUMMARY BENEFITS OF THE PROJECT

PSE's construction of the Phase I would be a valuable step in acquiring the necessary electric supply resources to meet the Company's renewable portfolio standard requirements. The principal benefits of this new resource would be as follows:

- 1) Renewable generation ownership provides long-term wind resource value and avoids the liquidity and credit requirements that typically accompany many long-term PPAs;
- 2) Meets the requirements for the Treasury Grant program that provides \$341,175,000 nominal benefit to customers (\$22/MWh);
- 3) Takes advantage of sales tax exemption which provides \$45,737,000 nominal savings, inclusive of taxes and AFUDC, to customers;
- 4) Most viable opportunity for near-term renewable energy project that helps satisfy energy needs and RPS requirements;
- 5) Synergies with Hopkins Ridge operations that allow cost savings on infrastructure and personnel;
- 6) Expansion into Garfield County which enjoys local community support; and
- 7) PSE controls development and construction that saves developer premium, maintains flexibility and provides additional development experience.

Other benefits include:

- 1) Phase I is the least-cost renewable generation resource compared to alternatives from the 2010 All Source RFP;
- 2) Project generation and projected power costs add portfolio value of over \$68.8 million;
- 3) Incremental addition that leaves open options for additional renewable and thermal resources;
- 4) State-of-the-art WTGs and control technology provided by a world-class manufacturer (Siemens) with substantial experience and a worldwide commitment to renewable energy resources; and
- 5) Zero emission technology with minimum impacts on the natural environment.

7.9. RECOMMENDATION

Based on the determination of need, the identification and analysis of alternatives, and the proposed execution and benefits of the Project, management recommends that the Board of Directors adopt the Resolutions (Exhibit A) approving the construction of Phase I and authorizing the execution of the Project's principal contracts and agreements, including the TSA, SMA, BOP Contract and LGIA.

8. GUIDE TO ACRONYMS & SHORTENED TERMS

ARRA	American Recovery and Reinvestment Act
BA	Balancing Authority
BMcD	Burns & McDonnell
Board	Board of Directors
BOP	Balance of Plant
BPA	Bonneville Power Administration
Central Ferry Substation	BPA substation
COD	Commercial Operation Date
Company	Puget Sound Energy
CUP	Conditional Use Permit
DS	Determination of Significance
EMC	Energy Management Committee
Grant	U.S. Treasury Department cash grant in lieu of Investment Tax Credit
IRP	Integrated Resource Plan
ITC	Investment Tax Credit
JDA	Joint Development Agreement
kV	kilovolt
LGIA	Large Generator Interconnection Agreement
LSR	Lower Snake River
LSRWP	Lower Snake River Wind Project
Phase I or Project	Lower Snake River Wind Project, Phase I
MW	Mega Watt
MWh	Mega Watt Hour
O&M	Operations and Maintenance
PSE	Puget Sound Energy
PTC	Production Tax Credit
Report	Report to the Board of Directors
RES	RES America Construction, Inc.
RES Development	RES America Developments, Inc.
RFP	Request for Proposals for Generation Resources
RPS	Renewable Portfolio Standards
SMA	Service and Maintenance Agreement
Treasury	U.S. Department of Treasury
TSA	Turbine Supply Agreement
WTG	Wind Turbine Generator

**RESOLUTIONS OF THE BOARD OF DIRECTORS OF
PUGET SOUND ENERGY, INC.**

APPROVAL OF CONSTRUCTION OF PHASE I OF THE LOWER SNAKE RIVER WIND POWER FACILITY

WHEREAS, this Board of Directors of Puget Sound Energy, Inc. (the "Company") has determined that it is in the best interests of the Company, its customers, shareholders and other stakeholders to add energy resources into the Company's energy resource portfolio consistent with the Company's least cost planning and analysis;

WHEREAS, the Company's review and analysis of a self-developed generation project has determined it to be a least cost resource for additional energy resource generation;

WHEREAS, the facility to be developed and constructed consists of an approximately 343 MW wind powered electric generation facility to be situated on a portion of approximately 39,600 acres of land leased by the Company for such purpose located in Garfield County, Washington, and to consist of 149 2.3 MW wind turbine generators (each, a "WTG") and associated electrical collection systems and other interconnection facilities (collectively, the "LSR Phase I Project");

WHEREAS, the Company's management has negotiated with Siemens Energy, Inc. ("Siemens"), the WTG supplier, the terms and conditions of the purchase of the WTGs and the ongoing operation and maintenance of the wind farm, and has negotiated with RES America Construction Inc. ("RES") the terms and conditions of the construction of the wind farm facility, pursuant to the principal definitive transaction documents (the "Principal Transaction Documents") described below:

1. PSE will contract with Siemens for the purchase of the 149 WTGs, and for the delivery, erection, testing and commissioning of the WTGs pursuant to a Wind Turbine Supply, Installation and Commissioning Agreement (the "TSA"). The contract price under the TSA is approximately \$ [REDACTED] million, payable by PSE pursuant to a payment schedule tied to the manufacturing, shipment, erection, commissioning and final completion of the Project. A guaranty of the obligations of Siemens under the TSA will be provided by its parent, Siemens Corporation, the U.S. subsidiary of Siemens AG of Munich, Germany.
2. Once the WTGs are placed into service, Siemens will provide an availability guaranty and a five-year mechanical warranty pursuant to the TSA and will provide five years of maintenance, operation, spare parts and service of the WTGs under a separate Service Agreement ("Service Agreement") between PSE and Siemens.
3. PSE will contract with RES to perform, or cause to be performed, all engineering, procurement and construction relating to the balance of plant for the LSR Phase I Project pursuant to a Balance of Plant Agreement (a "BOP Agreement"). PSE will contract with RES on an open-book basis (which requires the parties to agree on a fixed contract price after reviewing subcontractor bids), and currently estimates

[REDACTED]
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that it will pay RES approximately \$ [REDACTED] million for performing its scope of work (which will consist of certain of the civil and electrical engineering and construction of the Project such as the roads, WTG foundations, the electrical collection system, and the project's interconnection with substation transmission facilities), which amount will be payable by PSE as RES reaches certain scheduled milestones on the construction schedule. A guaranty of the obligations of RES under the BOP Agreement will be provided by its parent, Renewable Energy Systems Holdings Ltd., of the United Kingdom.

4. PSE will enter into a Standard Large Generator Interconnection Agreement (the "LGIA") with the Bonneville Power Administration of the United States Department of Energy (the "BPA"). The LGIA will govern the terms and conditions by which the LSR Phase I Project may interconnect with BPA's bulk transmission system, and obligates PSE to fund the majority of the construction costs of a new BPA 500 kV substation and associated transmission network system upgrades (estimated to cost approximately \$102 million, of which approximately \$38 million has been paid to date). Approximately 97.5% of the amounts paid to BPA by PSE will be credited back to PSE by BPA against transmission service costs that would otherwise be due over a period of years following commercial operation of the LSR Phase I Project.

WHEREAS, the Principal Transaction Documents, the current development status and development plan of the LSR Phase I Project, its anticipated budget, and the primary risks relevant to its development, construction and operation are described more fully in a report provided to the Board of Directors in advance of this meeting and filed with the minutes (the "LSR Phase I Proposal"); and

WHEREAS, the officers now seek Board approval of and authority to enter into the Principal Transaction Documents and all other contracts and actions described in the LSR Phase I Proposal and relating to the development, construction and operation of the LSR Phase I Project;

IT IS, THEREFORE

RESOLVED, that the Board, after full consideration and due deliberation, deems it advisable and in the best interests of the Company, its customers, shareholders and other stakeholders to approve the construction and operation of the LSR Phase I Project pursuant to the Principal Transaction Documents, and any related agreements and the other transactions described in the LSR Phase I Proposal and in accordance with the budget and other materials set forth therein; and be it further

RESOLVED, that the Board hereby authorizes the Company's Chief Executive Officer, its Chief Financial Officer, its Chief Resource Officer, its General Counsel, and any such other officers they deem appropriate (the "Authorized Officers") to execute the Principal Transaction Documents and all other agreements or contracts described in the LSR Phase I Proposal, which may include such further additions, amendments or changes to the terms thereof as are deemed necessary and appropriate by the Authorized Officers; and

RESOLVED, that the Authorized Officers are further authorized to waive any conditions precedent to the closing of any of the Principal Transaction Documents in order to

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facilitate the closing of such agreement, provided that each of the Authorized Officers agree to such waiver and deem it to be in the best interest of the Company.

GENERAL AUTHORITY

RESOLVED, FURTHER, that any and all actions taken by the officers of the Company, or any of them, as deemed by such officers to be necessary or advisable to effectuate the transactions contemplated by the foregoing resolutions, including the filing of appropriate documentation with the Washington Utilities and Transportation Commission, whether prior to or subsequent to this action by this Board of Directors, are hereby authorized, approved and ratified, and the taking of any and all such actions and the performance of any and all such things in connection with the foregoing shall conclusively establish such officers' authority therefore from the Company and the approval and ratification thereof by this Board of Directors.

Recommendation to Approve Phase I of the Lower Snake River Wind Project Report to the Board of Directors

Roger Garratt
Director, Resource Acquisition, Development, and
Emerging Technologies

May 5, 2010



Agenda



- Approval of Phase I of the Lower Snake River Wind Project
 - Recommendation
 - Summary of the Project
 - Need for the Project
 - Alternatives and Analysis
 - Summary of Proposals Received from the RFP
 - Execution of the Project
 - Summary of Principal Agreements
 - Budget
 - Schedule
 - Recommendation



Recommendation



- Recommendation
 - Recommend the Board of Directors approve Phase I of the Lower Snake River Wind Project and the total project cost of \$848,041,000*. Phase I will construct 149 Siemens SWT 101 wind turbine generators (342.7 MW total capacity), two project substations, and supporting infrastructure.
- Recommend the Board Approve Principal Project Contracts
 - Turbine Supply Agreement (“TSA”)
 - Service and Maintenance Agreement (“SMA”)
 - Balance of Plant (“BOP”)
 - Large Generator Interconnection Agreement (“LGIA”)

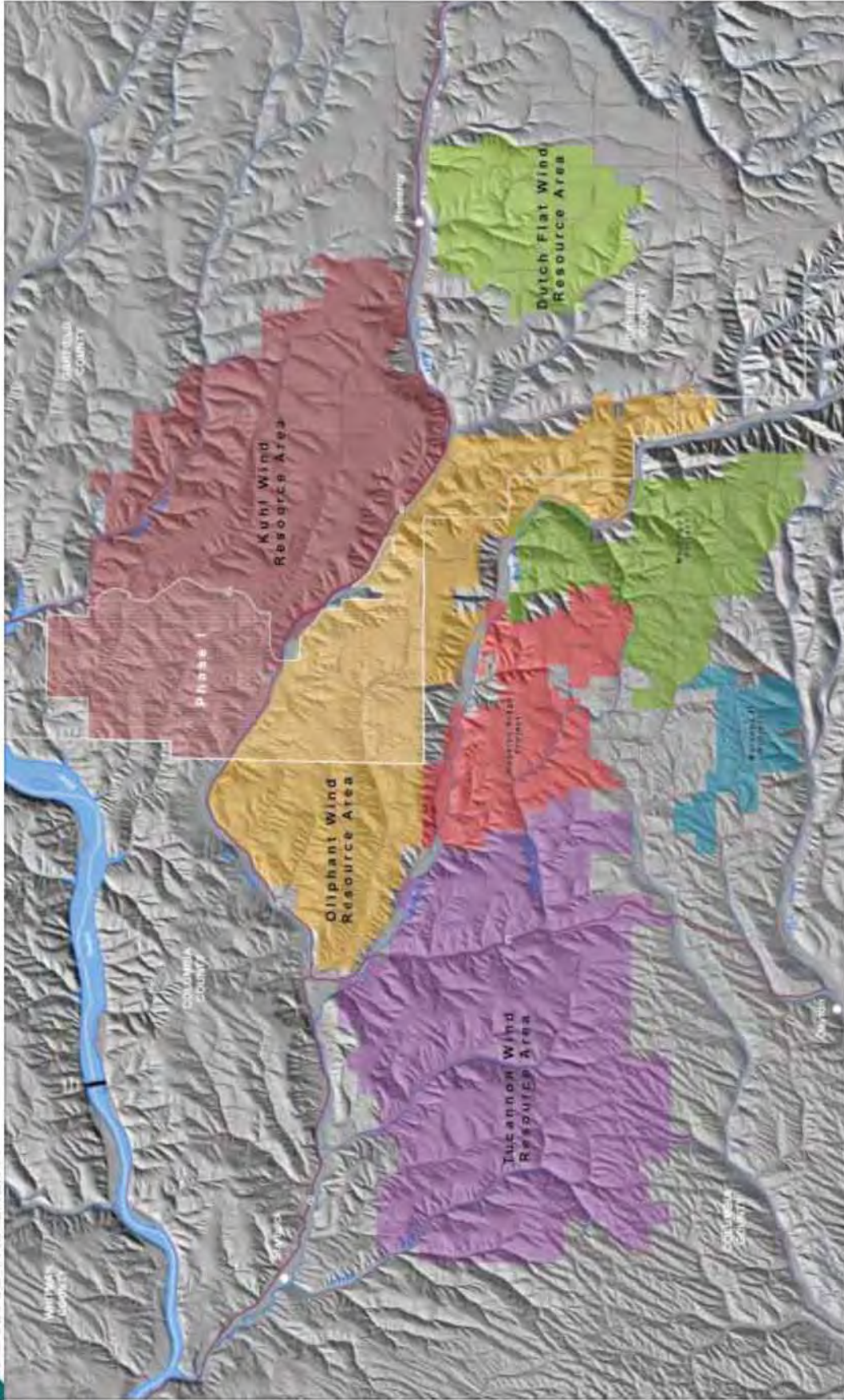
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* - consistent with \$ [REDACTED] capital spending budget (2010-2012, includes \$ [REDACTED] construction budget, \$ [REDACTED] development costs, and \$ [REDACTED] interconnection costs) for LSRWP Phase I in revised 5-year resource plan.

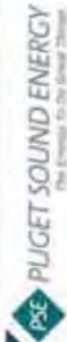
Project Description

Lower Snake River Wind Project

PSE PUGET SOUND ENERGY

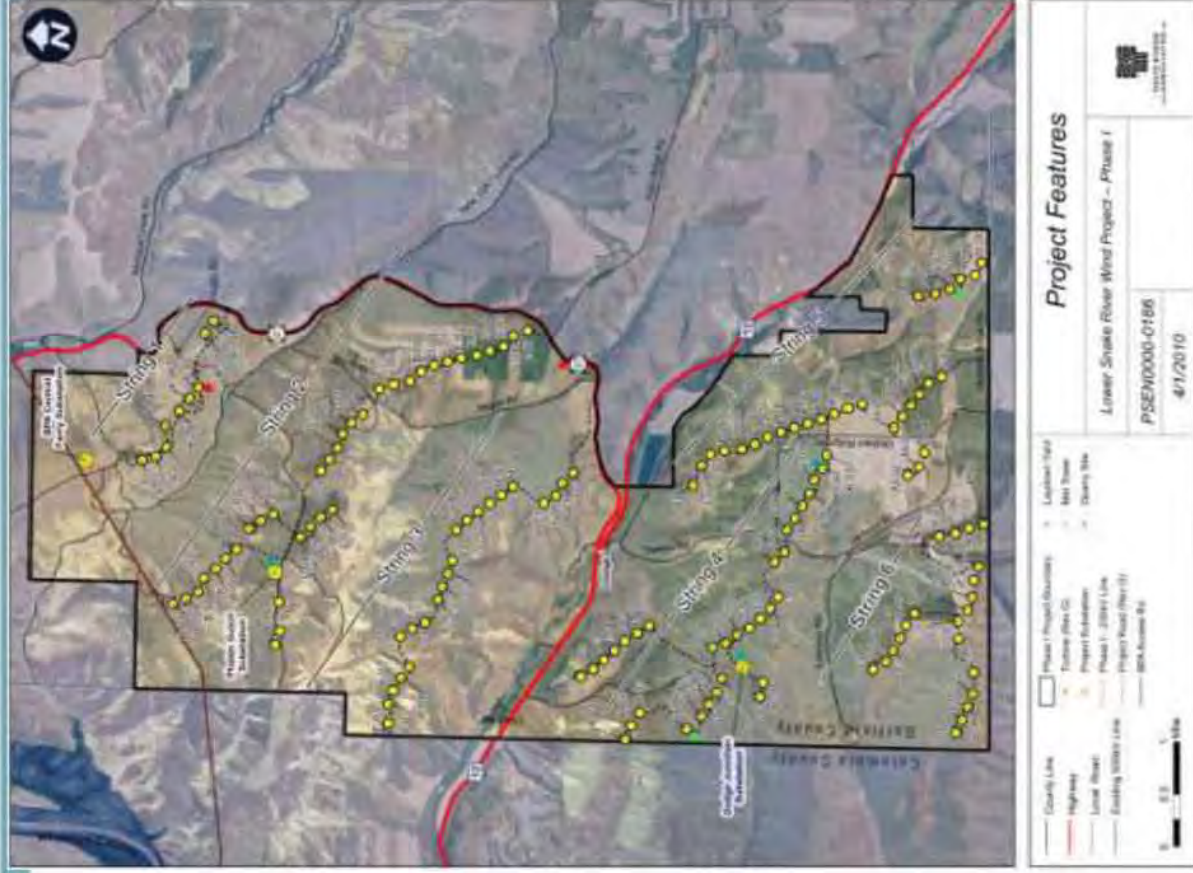


Project Description



- Located on 39,600 acres of leased property within Garfield County
- 342.7 MW Capacity
- 149 Siemens SWT 101 2.3 MW Wind Turbine Generators
- Interconnects to BPA's new 230/500 kV Central Ferry Substation
- Two 34.5/230 kV Project Substations
- Field Emergency Satellite Building
- O&M Building in Pomeroy, Washington
- Operated by PSE's Hopkins Ridge Operations Staff

Phase I Project Features



Optimization of Wind Resource Additions



Modeling Approach	Recommended Wind Capacity Addition by 12/31/2012	Notes
1. 2009 IRP	300 MW	Assumptions made prior to 2008 financial meltdown
2. Discounted Cash Flow Model ¹	600 MW	Evaluates changes since the IRP, including: <ul style="list-style-type: none"> • Treasury Grant • Lower turbine costs • Extension of WA State sales tax exemption
3. Re-run of IRP Optimization ¹	600 MW	Evaluates changes since the IRP, including: <ul style="list-style-type: none"> • Treasury Grant • Lower turbine costs • Lower wind integration, BPA tariff
4. 2010 RFP PSM III Optimization Model ²	740 to 990 MW ²	2010 RFP phase II evaluation: <ul style="list-style-type: none"> • Treasury Grant • Five real renewable resource proposals

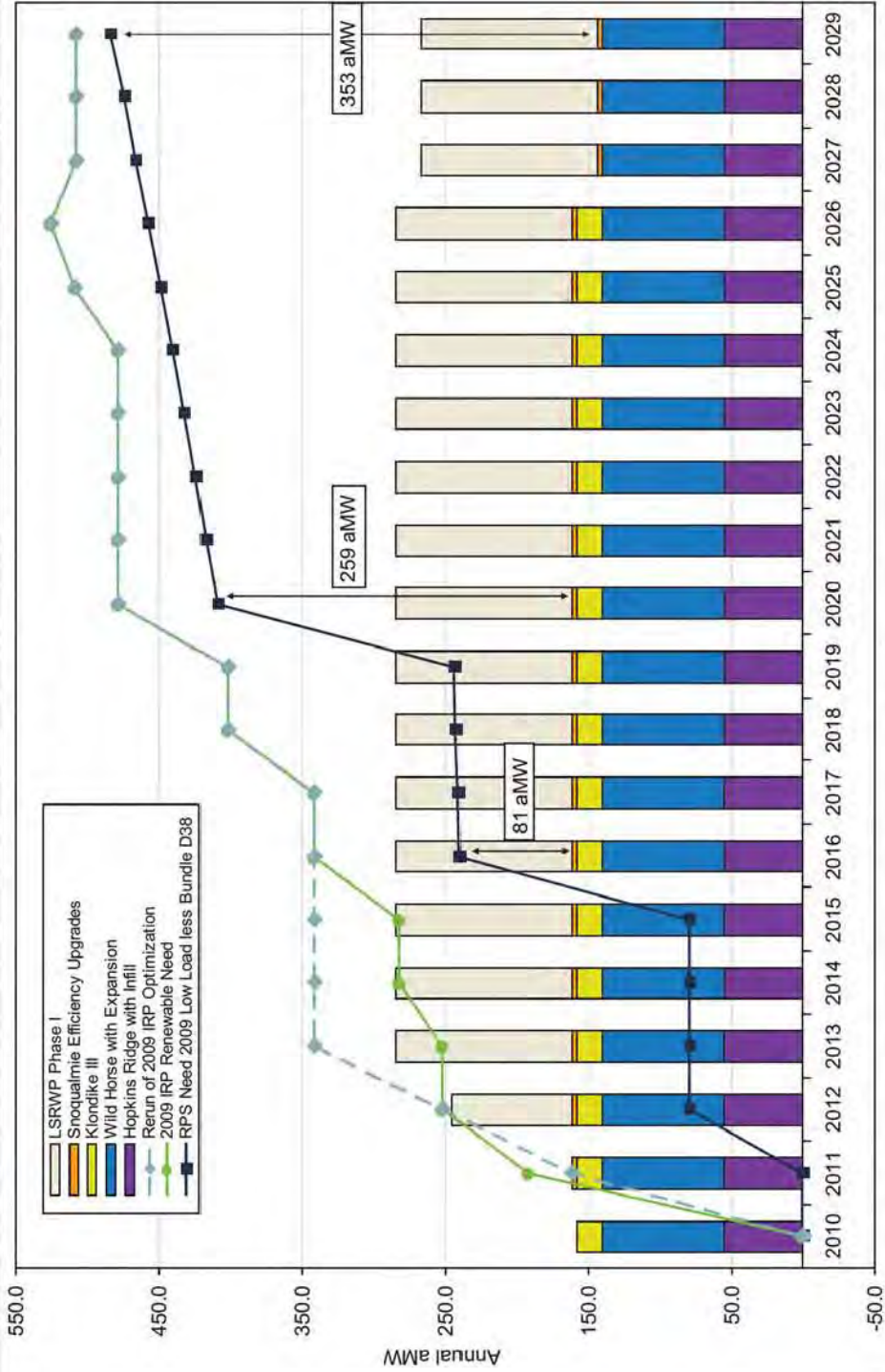
1. Presented to the EMC November 16th, 2009

2. PSM III optimization model ran five scenarios based on 2009 IRP methodology. In 4 out of 5 scenarios, PSM III selected 740 to 990 MW equivalent wind capacity, inclusive of the 1.2 REC multiplier. In 1 out of 5 scenarios, PSM III selected 130 MW equivalent wind capacity, inclusive of the 1.2 REC multiplier. This Low Growth scenario contains capital cost assumptions that are 15% lower than LSR Phase I.

Renewable Portfolio Standard Progress



Treasury Grant incentive trumps “just-in-time” renewable additions



Renewable Resources Contributions toward meeting IRP and RPS Targets

Alternatives and Analysis



- Phase I was compared to renewable resource proposals PSE received through the RFP process and unsolicited proposals¹
- Project economics of wind project alternatives assume utilization of the Treasury Grant program
- Treasury Grant program requires start of construction by December 31, 2010, and the project must be placed in service by December 31, 2012²
- Phase I is the most likely alternative to meet the Treasury Grant requirements¹

Notes

- 1) See Exhibit N of the Report to the Board
- 2) See Exhibit S of the Report to the Board

Alternatives and Analysis

Execution Risk Evaluation



Wind Resource	Real Estate		Interconnection & Transmission				Permits		
	All land leases secured	Land leases valid for life of project	BPA ROD complete	LGIA signed	Transmission request submitted	Firm transmission secured	Environmental / SEPA / NEPA review complete	Construction permits in hand	Unappealable permit in hand
LSRWP, Phase I	✓	✓	✓	pending	✓	✓	✓	✓	✓
	?	?	N	N	✓	✓	N	N	N
	N	✓	n/a	N	N	N	✓	N	✓
	N	✓	N	N	✓	N	N	N	N
	N	✓	n/a	✓	✓	N	✓	?	✓

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Wind Turbines	Balance of Plant		Treasury Grant		WA RPS
	Road & turbine layout design complete	BOP contract executed	5% safe harbor provision will be met by 12/31/2010	Likely that project will reach COD by 12/31/2012	15% apprentice labor will be used during construction to meet WA RPS provision
LSRWP, Phase I	✓	pending	✓	✓	✓
	✓	?	?	?	✓
	✓	N	?	✓	✓
	✓	N	?	?	✓
	✓	?	?	?	✓
	✓	?	?	✓	✓

- Treasury Grant deadlines drive focus on project execution risk
- LSRWP Phase I is the only construction-ready project among RFP Phase II alternatives

Alternatives and Analysis



- Phase I is the lowest reasonable cost alternative that meets the Company's need for renewable resources¹
- Evaluation considers economic metrics and project risks associated with each proposal in a qualitative summary
- The Phase 1 pro forma and RFP comparative analysis considers conservative financial assumptions. Realistic conditions may develop to substantially improve financial performance of the Project, including
 - BPA may complete Central Ferry Construction on, or ahead of, schedule
 - Revised guidance may not require normalization of the Treasury grant
 - Phase I may be constructed for less than the approved budget.

1 – See Exhibit N of the Report to the Board.



- EMC approved recommendation to enter exclusive negotiations with Siemens
- Siemens supply and erection of 149 SWT 101 2.3 MW WTG
- Key Terms And Conditions
 - Total fixed contract price: [REDACTED]
 - Includes turbine erection [REDACTED]
 - Remaining payment schedule tied to production, delivery, and commissioning milestones
- Project Budget includes [REDACTED] estimate for additional commissioning in 2012 and transportation
 - TSA options contemplate this extra work [REDACTED]
- [REDACTED] Availability Guarantee
- Siemens to utilize union labor and apprentices
- Ready to execute May 6, 2010

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Siemens Service & Maintenance Agreement



- Key Provisions
 - Payment
 - \$ [REDACTED] per WTG per year for 2012 (including WA sales tax)
 - Escalating annually at contract-defined rate based on CPI-U
 - Term
 - Five-year term
 - Full coverage but for force majeure
 - Strategic spare components stored on site
 - Step-in provisions

- Ready to execute May 6, 2010

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RES Construction BOP Agreement



- **BOP Pricing**
 - BOP Contract Price: \$ (estimate)
 - Fixed Portion at Signing: \$ % of the BOP Price)

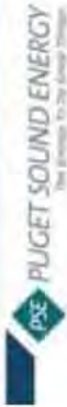
- **Key Terms of BOP**
 - **Subcontractors:** RES is obligated to identify major subcontractors and PSE can review qualifications
 - **Open-Book/Close-Book Process**
 - BOP Agreement price based on open book process
 - RES will bid PSE provided design packages
 - RES and PSE will conduct joint review of bid proposals
 - Following bid selection, the agreed bid price will become fixed in the BOP
 - Once bid price is fixed, BOP Agreement price risk will fall on RES, except for mutually-agreed change orders

- **Liquidated Damages:**
 - \$ per day per foundation for delay past guaranteed foundation completion date
 - \$1,150 per day per foundation for delay past each guaranteed string completion date
 - \$ per day per substation for delay past each guaranteed substation completion date
 - Max LDs is of the contract price

- **Parent Guaranty:** RES's UK corporate parent will provide guaranty of RES's obligations
- **Completion:**
 - Substantial Completion April 15, 2012
 - Final Completion not later than six months following
- **Insurance:** PSE to provide "Builders All Risk" insurance
- **PSE Termination for Convenience:** If PSE terminates without cause prior to completion, PSE will be obligated to pay LDs in a fixed amount for every WTG affected by termination
- **Dispute Resolution:** Arbitration in WA
- RES Construction to utilize union labor and apprentices
- **Ready to execute May 6, 2010**

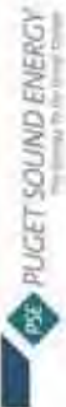
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BPA LGIA Agreement



- LGIA contract largely non-negotiable
- Anticipated Key Terms
 - \$102,200,000 pre-payment to BPA in 2010/2011, 97.5% reimbursable network upgrades repaid to PSE as transmission credits
 - PSE has already advanced \$38,200,000 to BPA under the Engineering and Procurement Agreement
 - HDR selected as design engineer
 - General contractor not yet selected
 - PSE does not have option to self-construct BPA network upgrades
 - PSE has limited contractual remedies in the case of BPA non-performance or ability to pursue other alternatives
- Ready to execute May 6, 2010

Capital Plan



	\$/kW	Percent of Total
DEVELOPMENT BUDGET		
Development Rights		
PSE Allocated Development Costs		
Interconnection Costs		
Prepaid Transmission Expense		
TOTAL DEVELOPMENT BUDGET		
CONSTRUCTION BUDGET		
Wind Turbine Generators		
TSA Contract Price		
Anticipated TSA Options		
Balance Of Plant		
O&M Building		
Step-up Transformers		
RES Contract Price		
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead		
Project Communications		
Start-up Costs		
Sales Tax		
Contingency		
TOTAL CONSTRUCTION BUDGET		
AFUDC		
TOTAL ALL-IN PROJECT COSTS	848,041	100.0%

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Capital Plan Compared to January 12, 2010 Plan



	2009	2010	2011	2012	2013	2014	2009-2014
Jan 12, 2010 Plan							
	(\$ in millions)						
LSR CapEx Total	[REDACTED]						
Current Proposed Plan	[REDACTED]						
LSR CapEx Total	[REDACTED]						
LSR Phase 1 - 342.7 MW	[REDACTED]						
Other LSR Phases	[REDACTED]						
Change In LSR CapEx (Current Proposal less Jan 12 Plan)	[REDACTED]						

Note:

1 - Does not include AFUDC, BPA pre-paid transmission expense, or 2008 expenditures

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The Current Proposed LSR Capital plan is less than the January 12, 2010 Plan

- Reduction from 500 MW to 342.7 MW by 2012
- Shifting subsequent Phases of LSRWP to 2016 and later
- Favorable turbine pricing

Lower Snake River Phase I Milestone Schedule*

Milestone	Date
Order Transformers (long lead item)	May 6, 2010
Execute Turbine Supply Agreement	May 6, 2010
BOP EPC, Notice to Proceed (NTP)	May 6, 2010
Guaranteed Foundation Completion Date	December 1, 2010
BOP EPC Final Design & Competitive Open Book Bid Closed	December 31, 2010
Initial Grant Application to US Treasury	September 30, 2011
Wind Turbine Generator (WTG) Substantial Completion – Phase I	November 22, 2011
Backfeed Power available from BPA Central Ferry Substation	December 15, 2011
Project Substantial Completion (Commercial Operation) – Phase I	April 15, 2012
Final Grant Application to US Treasury	May 30, 2012
Anticipated Date of Receipt of US Treasury Grant	August 6, 2012
Project Final Completion – Phase I	October 15, 2012

* Assumes May 2010 authorization

Recommendation



- Recommendation
 - Recommend the Board of Directors approve Phase I of the Lower Snake River Wind Project and the total project cost of \$848,041,000*. Phase I will construct 149 Siemens SWT 101 wind turbine generators (342.7 MW total capacity), two project substations, and supporting infrastructure.

- Recommend the Board Approve Principal Project Contracts
 - Turbine Supply Agreement (“TSA”)
 - Service and Maintenance Agreement (“SMA”)
 - Balance of Plant (“BOP”)
 - Large Generator Interconnection Agreement (“LGIA”)

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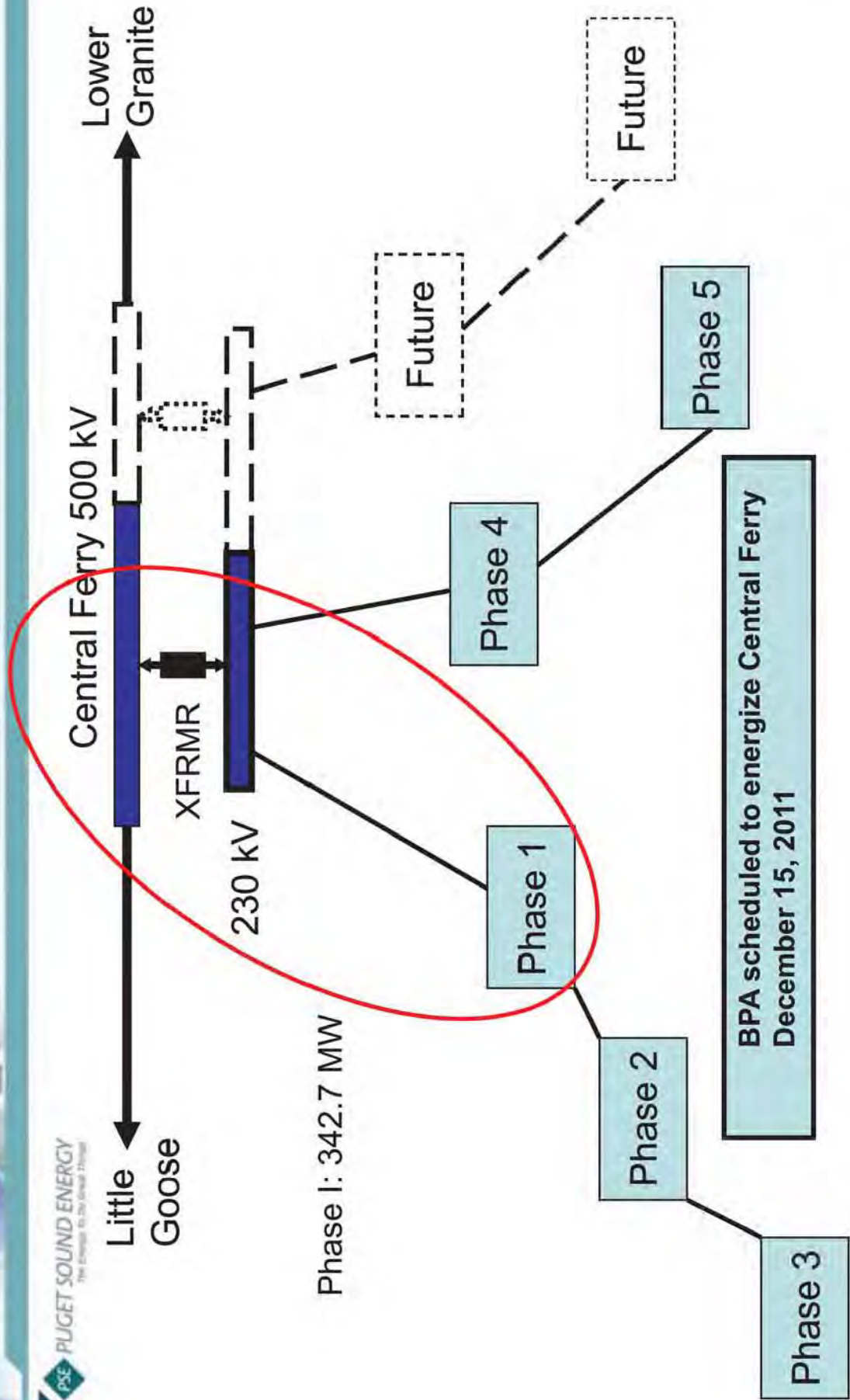
* - consistent with \$[REDACTED] capital spending budget (2010-2012, includes \$[REDACTED] construction budget, \$[REDACTED] development costs, and \$[REDACTED] interconnection costs) for LSRWP Phase I in revised 5-year resource plan.



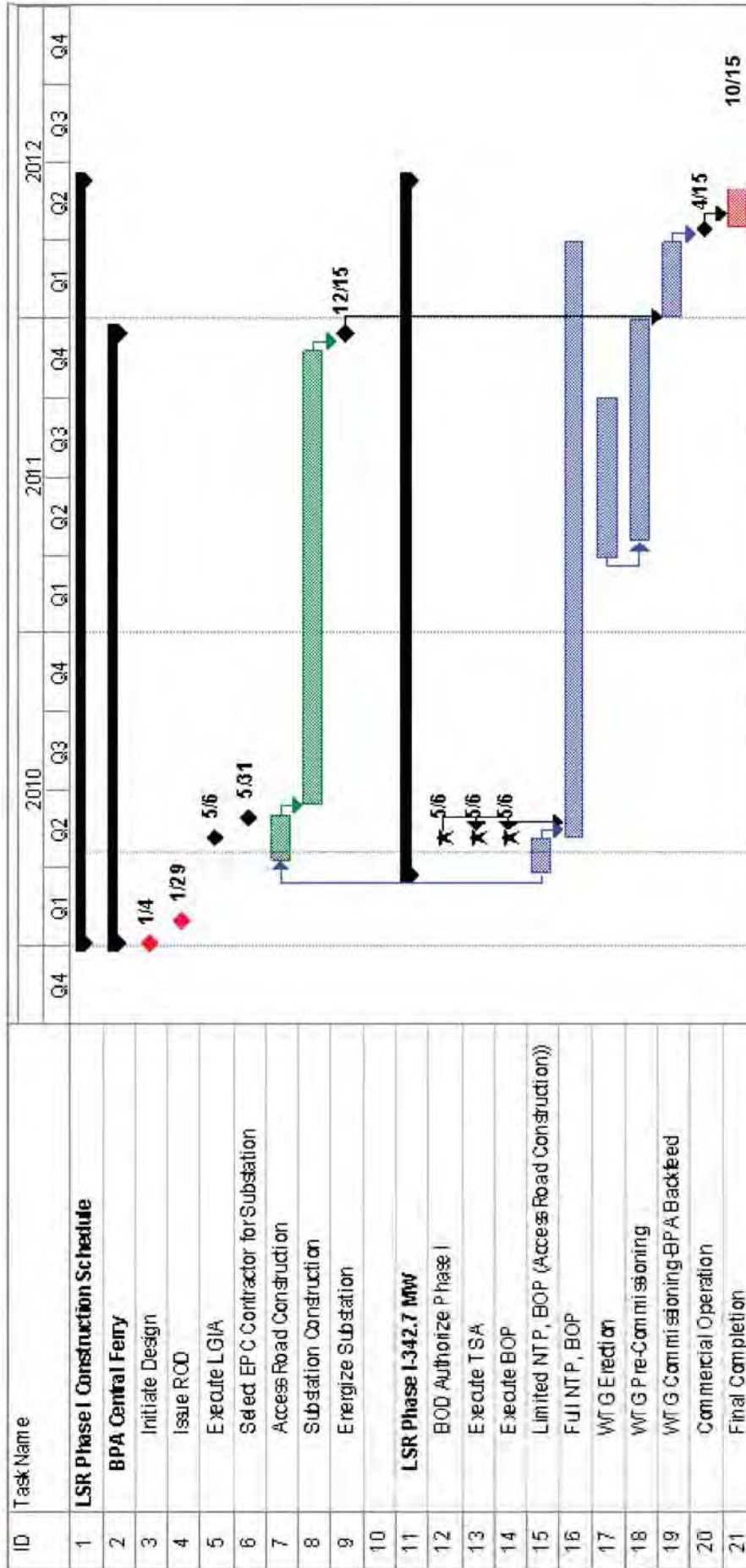
APPENDIX



Project Description Simplified LSR Wind Project Interconnection

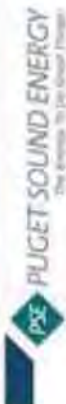


LSR and Central Ferry Schedule



Stimulus Bill renewable incentives require COD by Dec 31, 2012

RFP Phase II: Renewable proposal recommendations



2010 RFP Renewable Resource Acquisition Recommendations

Staff Recommendation ¹	RFP ID	Proposal ²	Structure	Fuel Type	Size (MW)	P50 Annual RECs ³⁻⁶	COD
Self-Build and Unsolicited Proposal							
Recommended to construct	N/A	Lower Snake River Phase 1	Ownership	Wind	343		2012
Candidate Shortlist	N/A		20-yr PPA	Wind			2012
RFP Proposals							
Candidate Shortlist	10059		20-yr contract	REC Only	NA		2012
Candidate Shortlist	10009		20-yr PPA	Biomass			2013
Candidate Shortlist	10025		20-yr PPA	Biomass			2013
Candidate Shortlist	10163		25-yr PPA	Biomass			2013
Not Selected	10075		Ownership	Wind			2011 ⁷
Not Selected	10117-a		20-yr PPA	Wind			2012
Not Selected	10117-b		20-yr PPA	Wind			2012

NOTES:

- 1- EMC appendix provides a summary of quantitative, commercial, transmission, community, environmental and credit analysis.
- 2- All projects on the list are expected to qualify for a 1.2 REC multiplier by using 15% apprenticeship labor for construction work.
- 3- 2016 RPS requirement is estimated to be 2,115,775 RECs. PSE's existing resource currently supplies approximately 1,427,186 RECs.
- 4- An additional 688,589 RECs are needed to meet the 2016 need.
- 5- PSE's qualitative development plan analysis determined that no more than an equivalent 600 MW of wind should be acquired at this time.
- 6- 600 MW of wind is equivalent to 1,576,800 RECs per year.
- 7- Quantitative evaluation based on COD in 2012.

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RFP Phase II: Renewable proposal recommendations



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Staff Recommendation	RFP ID	Proposal ¹	Rationale ²	Portfolio Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh ³	Scenario Selection of 5
Self-Build and Unsolicited Proposal							
Recommended to construct	N/A	Lower Snake River Phase 1 343 MW Ownership	Comparison to RFP proposals confirms recommendation to construct. Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project is in advanced stage of development with key development items completed. PSE has confidence in the costs, mitigation of risks, and schedule execution associated with the project. Project is construction ready and is well-positioned to capture Treasury grant.	0.09	68.8	[REDACTED]	4
Candidate Shortlist	N/A	[REDACTED] 20-yr PPA	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project holds firm transmission rights, but does not have permit or interconnection agreement. Further investigation is necessary to explore potential schedule and price risks.	0.14	35.5	[REDACTED]	5
RFP Proposals							
Candidate Shortlist	10059	[REDACTED] 20-yr contract	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Proposal partially meets renewable need with a small volume of RECs. Further investigation is necessary to explore commercial terms and credit support issues.	2.26	14.2	N/A	1
NOTES:							
1- With the exception of the REC Only proposal, all quantitative evaluations rely on the assumption that the Treasury Grant 5% safe harbor provision will be met by 12/31/2010. Should a developer not meet this provision, there is risk that the price proposed will increase.							
2- EMC appendix provides a summary of quantitative, commercial, transmission, community, environmental and credit analysis.							
3- REC only projects cannot be evaluated using Levelized Cost as there is no energy component.							

RFP Phase II: Renewable proposal recommendations



Staff Recommendation	RFP ID	Proposal ¹	Rationale ²	Portfolio Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh ³	Scenario Selection of 5
Candidate Shortlist	10009	[REDACTED] 20-yr PPA	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project has secured a portion of the fuel supply. Further investigation is necessary to explore risks associated with fuel pricing, availability for stand-alone operation, and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.13	19.2	[REDACTED]	2
Candidate Shortlist	10025	[REDACTED] 20-yr PPA	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Seller assumes fuel cost risk. Project has secured 100% of fuel supply through existing operations of project partners. Further investigation is necessary to explore risks associated with achievable capacity factor and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.11	19.7	[REDACTED]	2
Candidate Shortlist	10163	[REDACTED] 25-yr PPA	Project economics are not as favorable as alternatives in the Phase 2 evaluation; however, project developer is experienced and backed by known companies with resources to achieve successful execution. Thus, further exploration of the proposal is recommended. Further investigation is necessary to explore risks associated with fuel supply and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.05	20.2	[REDACTED]	1

NOTES:

- 1- With the exception of the REC Only proposal, all quantitative evaluations rely on the assumption that the Treasury Grant 5% safe harbor provision will be met by 12/31/2010. Should a developer not meet this provision, there is risk that the price proposed will increase.
- 2- EMC appendix provides a summary of quantitative, commercial, transmission, community, environmental and credit analysis.
- 3- REC only projects cannot be evaluated using Levelized Cost as there is no energy component.

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RFP Phase II: Renewable proposal recommendations



Staff Recommendation	RFP ID	Proposal ¹	Rationale ²	Portfolio Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh ³	Scenario Selection of 5
Not Selected	10075	[REDACTED] Ownership	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Negotiation and execution of definitive agreements within required timeframe is aggressive. Commercial success at proposed price offer may be unrealistic given outstanding development items to be completed. Construction may not commence in time to capture Treasury grant. Winter construction schedule and interconnection facilities construction schedule places the proposed Commercial Operation Date at risk.	0.05	18.6	[REDACTED]	4
Not Selected	10117-a	[REDACTED] 20-yr PPA	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Commercial success at proposed price offer may be unrealistic because the development schedule may not enable the project to capture Treasury grant. The proposed BPA interconnection construction schedule places the proposed Commercial Operation Date at risk, which also increases price risk if the project fails to achieve federal tax incentive dates. Transmission rights have not been secured.	0.01	3.2	[REDACTED]	1
Not Selected	10117-b	[REDACTED] 20-yr PPA	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Future PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols. Construction may not commence in time to capture Treasury grant.	(0.03)	(8.7)	[REDACTED]	2

REDACTED VERSION

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NOTES:

- 1- With the exception of the REC Only proposal, all quantitative evaluations rely on the assumption that the Treasury Grant 5% safe harbor provision will be met by 12/31/2010. Should a developer not meet this provision, there is risk that the price proposed will increase.
- 2- EMC appendix provides a summary of quantitative, commercial, transmission, community, environmental and credit analysis.
- 3- REC only projects cannot be evaluated using Levelized Cost as there is no energy component.

Candidate Short List Wind Development Checklist



		[REDACTED]					Notes
	Project Development Status	LSRWP, Phase I					
Wind Resource	Wind resource assessment received from credible wind resource consultant	✓	✓	✓	✓	✓	[REDACTED] has a wind resource assessment for an outdated turbine layout. A new wind resource report is needed to match the revised turbine layout.
	Wind resource report is final	✓	?	N	N	N	Wind turbine selections and / or layout may change for [REDACTED] and [REDACTED].
Real Estate	All land leases secured	✓	N	✓	✓	✓	Additional property required for [REDACTED] but developer is not in active negotiations with land owner.
	Land leases are valid for life of proposed projects	✓	?	N	✓	✓	Land leases for [REDACTED] do not last for duration of project life. Leases need to be renegotiated, which PSE would have to complete before construction.
Interconnection & Transmission	BPA ROD complete	✓	N	n/a	N	n/a	
	LGIA signed with transmission utility for interconnection	pending	N	N	N	✓	LGIA for Lower Snake River Phase I is ready to be signed, which PSE will do should the BOD approved of the project at the May 5th BOD meeting.
	Transmission request submitted with transmission provider	✓	✓	N	✓	✓	[REDACTED]
	Firm transmission secured	✓	✓	N	N	N	[REDACTED] - LSR has firm transmission for 250 MW upon COD. Firm transmission for remaining 92.7 MW will be secured mid-2013, a little more than a year after planned COD.

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Candidate Short List Wind Development Checklist (cont.)

		LSRWP, Phase I		Notes		
Project Development Status						
Permits	Permit submitted to local county or EFSEC	✓	✓	✓	✓	
	Environmental / SEPA / NEPA review complete	✓	N	✓	✓	
	Permit received from governing authority	✓	N	✓	✓	
	Unappealable permit in hand	✓	N	✓	✓	Permit appeal for [REDACTED] is unlikely as project is located in wind overlay zone.
	NPDES complete	✓	N	✓	?	
Wind Turbines	DAHP consultation and approval (or Oregon counterpart)	✓	?	✓	?	
	Construction permits received	✓	N	N	N	
	Wind turbines for site selected	✓	✓	✓	✓	It is assumed that [REDACTED] and [REDACTED] will allocate wind turbines from stock for the [REDACTED]
	Turbine Service Agreement and Service and Maintenance Agreement signed with turbine manufacturer	pending	pending	N	N	The TSA and SMA for the Lower Snake River are finalized and will be signed May 6th should the BOD approve of LSR Phase I at the BOD meeting May 5th.
	Road & turbine layout design complete	✓	?	N	?	[REDACTED] final wind turbine layout is subject to change after DNV-GEC questions turbine suitability of the layout because of close turbine spacing.
Balance of Plant	O&M Building design complete	N	?	N	?	
	BOP contract executed	pending	N	N	N	The BOP for the Lower Snake River is finalized and will be signed May 6th should the BOD approve of LSR Phase I at the BOD meeting May 5th.

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Candidate Short List Wind Development Checklist (cont.)



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	Project Development Status	LSRWP, Phase I				Notes
Treasury Grant	5% safe harbor provision will be met by 12/31/2010	✓	?	?	?	- [REDACTED] communicated that all transaction documents must be completed with PSE by 7/31/10 for the project to fulfill the Treasury Grant safe harbor provisions. This timeline would be extremely difficult to meet. If the Treasury Grant cannot be secured, PTCs will be elected tax incentive. - PSE legal counsel advises that a 5% safe harbor provision be met with onsite construction work only. Some developers may choose to rely on wind turbine milestone payments as a way to meet the safe harbor provision.
WA RPS	Likely that project will reach COD by 12/31/2012 15% apprentice labor will be used during construction to meet WA RPS provision	✓	?	✓	✓	Based on BPA timing for interconnection construction, it may be unlikely that [REDACTED] reach COD by 12/31/2012

PSE Project Management, Engineering, Construction Permitting, Third Party Services, Community Relations, and Overhead

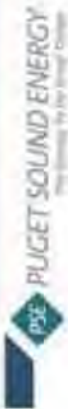


\$000's	2010	2011	2012	Total
PSE Project Management				
Labor, Expenses, Labor Overhead				
Construction OH				
Total				
Wind Resource				
Analysis				
Met Tower Maintenance				
Power Performance Testing				
Total				
Real Estate				
Land Lease Payments				
Construction Payments				
O&M Land Purchase				
Survey Costs				
Environmental Site Assessment				
Title Insurance				
Total				
Permitting				
Garfield County Cost Reimbursement				
Cultural Resource Monitoring				
Environmental Consultants				
Total				
Legal				
Dewey & LeBoeuf				
Total				
Engineering				
Construction Monitoring				
Owner's Engineer				
Total				
Community Relations				
Informational Events				
Publications				
Community Projects				
Project Documentation				
Total				
Insurance				
Construction Insurance				
Total				
Total*				

* Does not include Construction OH accrued prior to May 2010

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Common Cost Allocation Percentages



- Prior to construction, all common development costs are allocated to each Project phase according to the following allocation percentages

LSR Cost Allocation Breakdown	
Phase 1	[REDACTED]
Phase 2	[REDACTED]
Phase 3	[REDACTED]
Phase 4	[REDACTED]
Phase 5	[REDACTED]
Total	100%

Development costs common to each Project phase and the allocation of these costs to Phase I:

Cost Category	Total Cost (\$000's)	Phase 1 Allocation (\$000's)
Development Rights	[REDACTED]	[REDACTED]
PSE Allocated Development Costs	[REDACTED]	[REDACTED]
Prepaid Transmission Expense	[REDACTED]	[REDACTED]

* Development costs prior to Phase I NTP

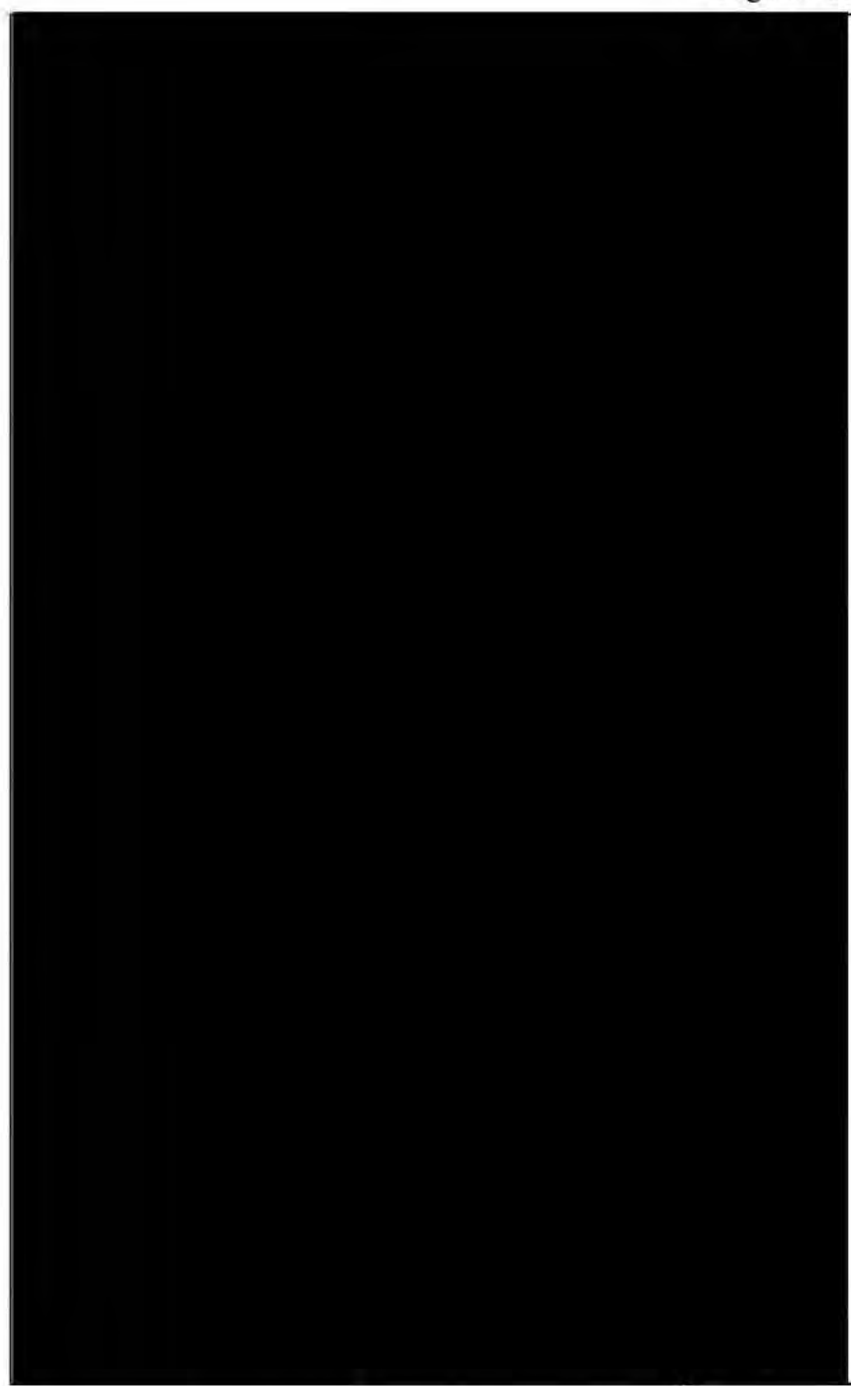
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ENSO¹ Impacts at Hopkins Ridge & Wild Horse



Typical Impacts to Pacific Northwest

- El Niño – warmer winter, less precipitation (less storms, less wind) -> lower NCF
- La Niña – colder winter, more precipitation (more storms, more wind) -> higher NCF



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¹ – El Nino Southern Oscillation

Risk Analysis Pre-Construction Stage

Risk Area	Risk Description	Mitigation
Permitting	Appeal of the Conditional Use Permit	This risk has been mitigated as the Conditional Use Permit was issued by the Garfield County Hearings Examiner on November 25, 2009. The 21 day appeal period following the Hearing Examiner's decision passed with no appeals filed.
NEPA Record of Decision	Schedule delays due to not acquiring the Record of Decision in time to begin construction work on Central Ferry substation	This risk has been mitigated as BPA issued its Record of Decision on January 28, 2010 allowing construction work on Central Ferry substation to commence.
Large Generator Interconnection Agreement	Inability to reach definitive agreement in acceptable form with BPA	This risk has been mitigated as LGIA negotiations are complete; the Agreement will be executed following Board approval.
Turbine Supply Agreement and Service & Maintenance Agreement	Inability to reach definitive agreement in acceptable form with Siemens	This risk has been mitigated as TSA and SMA negotiations are complete; the Agreements will be executed following Board approval.
Balance of Plant Agreement	Inability to reach definitive agreements in an acceptable form, and unwillingness for RES Construction to provide flexibility surrounding the NTP date	This risk has been mitigated as BOP negotiations are complete; the Agreement will be executed following Board approval.

Risk Analysis Pre-Construction Stage



Risk Area	Risk Description	Mitigation
Transmission	Delays in transmission improvements curtail Project output	PSE has 250 MW of firm transmission rights as of date certain. With respect to the remaining 93 MW, BPA must construct West of McNary and Central Ferry-Lower Monumental upgrades. BPA is highly incented to complete transmission projects that will facilitate more renewable power in the region and has Stimulus Bill funding.
Project Economics	Stranded cost due to changes in development plan	PSE would seek recovery of stranded costs if and when they occur via accounting petitions or rate filings.
Renewable Incentives	Uncertainty around implementation of Stimulus Bill provisions limit financing options	<ul style="list-style-type: none"> •Five-year plan economics assume normalization of grant with 10-year amortization. •Treasury has issued clarifying rules related to start of construction and definition of qualified property. PSE has shifted more qualifying work from 2011 to 2010 in order to insure that the grant remains an option for the Project for the benefit of customers. •PSE is working with Congress on a legislative fix to eliminate the normalization requirement, which would further benefit Project economics for customers.
Change in Law <ul style="list-style-type: none"> •Repeal RPS •Tax law changes 	Federal legislation repeals State RPS or Stimulus Bill provisions	<ul style="list-style-type: none"> •Active lobbying efforts at state and federal level •Likelihood of future green house gas ("GHG") legislation and federal RPS should increase value of renewables in portfolio

Risk Analysis Construction Stage



Risk Area	Risk Description	Mitigation
Capital Budget	BOP price escalation	Once the BOP Agreement is signed, \$ million of the total BOP budget will be fixed. The remaining BOP budget is subject to price escalation due to an open book contract process. PSE and RES have developed detailed and thorough BOP cost estimates. This risk is limited due to the relatively short construction timeframe in which prices could escalate.
Construction Schedule	Delayed project start or early winter	RES is mobilized onsite and has begun construction work on the Central Ferry substation access road under a Limited Notice to Proceed ("LNTTP"). Construction work on the remainder of Phase I is set to proceed upon Board approval. Additionally, PSE Project Management has been actively involved in the construction planning and scheduling process.
Construction Schedule	Delays in BPA Construction and Energization of Central Ferry substation	<ul style="list-style-type: none"> ▪ PSE plans to proceed with turbine pre-commissioning before Central Ferry substation energization using portable generators. ▪ PSE is funding BPA in advance for Central Ferry work to support an on-time schedule. Provisions that could enable acceleration of the Central Ferry construction schedule, such as providing additional funds for early completion, are set forth in a letter agreement with BPA with the intent of reducing the risk of schedule slippage. ▪ PSE and BPA have agreed in principal that, upon selection by BPA of its construction contractor, status reports and meetings will be scheduled on a regular basis.

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Risk Analysis Construction Stage



Risk Area	Risk Description	Mitigation
Construction Schedule	Turbine supplier fails to deliver in a timely fashion	Siemens has more than 25 years of continuous presence in the wind industry and is a leading provider of wind turbines worldwide, with more than 7,800 turbines currently in operation. Given the company's track record, PSE expects turbines to be delivered in a timely fashion. In the event of delay, liquidated damage penalties have been negotiated to compensate PSE.
Construction Schedule	Transportation accidents	Siemens supplies insurance for transit and maintains risk of loss until site delivery.
Construction Schedule	BOP contractor fails to complete construction	PSE has obtained guarantees from RES Construction in the form of a performance bond and parent guarantee.
Construction Schedule	Construction accidents	Builder's all-risk insurance with PSE as a named insured
Construction Schedule	Erection delay	<p>PSE has obtained delay liquidated damages sufficient to cover substantially all of the cost of carrying the Project at its fully funded level from Siemens and RES Construction.</p> <p>The selection of Siemens as a qualified turbine erection contractor, coupled with a liquidated damages package provides assurance that the schedule will be met and keeps PSE whole in the event of delays.</p>

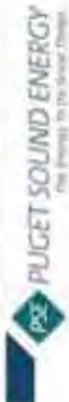
Risk Analysis Construction Stage



Risk Area	Risk Description	Mitigation
Construction Schedule	Tax implications of a delayed COD	Current law requires that the Project achieve commercial operation by December 31, 2012 in order for PSE to qualify for the Treasury grant or other renewable incentives. In the event of unforeseen conditions or circumstances prohibiting COD by that date (which would require 7-1/2 months of delay) PSE would energize individual turbine strings to achieve operational status for incentive purposes.
Capital Budget	Cost overruns exceeds budget estimate	Once the TSA is signed, [REDACTED] of the project budget will be fixed. To ensure BOP costs do not exceed the budgeted amount, PSE has included contract provisions that put the risk of construction overruns on the contractor.

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Risk Analysis Operations Stage



Risk Area	Risk Description	Mitigation
Rate Recovery	Failure to obtain favorable rate treatment from WUTC of PSE's investment in the Project.	As part of a recommendation to the Board of Directors to proceed with Phase I, rigorous financial analysis documentation has been included which demonstrates that the Project is a least cost resource.
Project Under-Performance	Poor initial long-term wind projection	Independent energy estimate by an industry expert DNV-GEC. Note: In the event of wind resource projection error, it could take several years to identify such error based on inter-annual wind variability.
Project Under-Performance	Upwind conditions change	Phases II and III, if built-out, will be upwind of Phase I. DNV-GEC, in its March 2010 Wind Resource Energy Assessment Report, analyzed the potential energy affects on Phase I if either Phase II, Phase III, or both are built out in addition to Phase I. The capacity factor for Phase I is [REDACTED] DNV-GEC's report indicates that the net capacity factor for Phase I would decrease to [REDACTED] if only Phase II was built-out, [REDACTED] if only Phase III was built-out, and [REDACTED] if both Phases II and III were built out.
Resource Change	Site wind resource change; climate change	Unable to mitigate. However, it is possible climate change could have the effect of making all wind resources more valuable than presently envisioned.

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Risk Analysis Operations Stage



Risk Area	Risk Description	Mitigation
Turbine Availability	Low availability from any cause	PSE has negotiated an availability guarantee of [REDACTED] for five years of the Service and Maintenance Agreement. Siemens will pay liquidated damages due to availability below [REDACTED]
Turbine Performance	WTG serial failure	Under the Service and Maintenance Agreement there are detailed preventative maintenance programs in place. Siemens is obligated to repair or replace any defective component without cost or expense to the buyer.
Turbine Failure	WTG failures during warranty period	PSE is protected by the five year mechanical warranty with Siemens.
Turbine Failure	WTG failures after warranty period	Siemens has secured Det Norske Veritas certification affirming that the Siemens SWT 2.3 MW WTG is designed and manufactured for a 20-year life in Class I wind conditions, the harshest wind class.
Lightning Strikes	Multiple causes, such as dirty blades, controller performance	Under the Service and Maintenance Agreement there are detailed preventative maintenance programs in place.
Intellectual Property	Claim by patent holder of infringement due to technology embodied in certain components of the SWT 2.3 MW turbine	Siemens will indemnify PSE against any infringement claims. In the event of infringement, Siemens will procure the appropriate rights, replace the infringing equipment, or modify it. Siemens has successfully deployed a large number of its 93-meter rotor diameter version of the SWT 2.3 unit as well as the 101-meter versions in the US without any infringement issues. Also, technology potentially at issue comes off patent prior to COD.

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Exhibit C

Project Description

Exhibit C **Project Description****Lower Snake River Wind Project**

The Lower Snake River Wind Project ("LSRWP") is located in southeast Washington and encompasses over 124,000 acres of leased lands in Garfield and Columbia Counties. LSRWP covers four Wind Resource Areas ("WRAs") as shown in Figure 1 below.

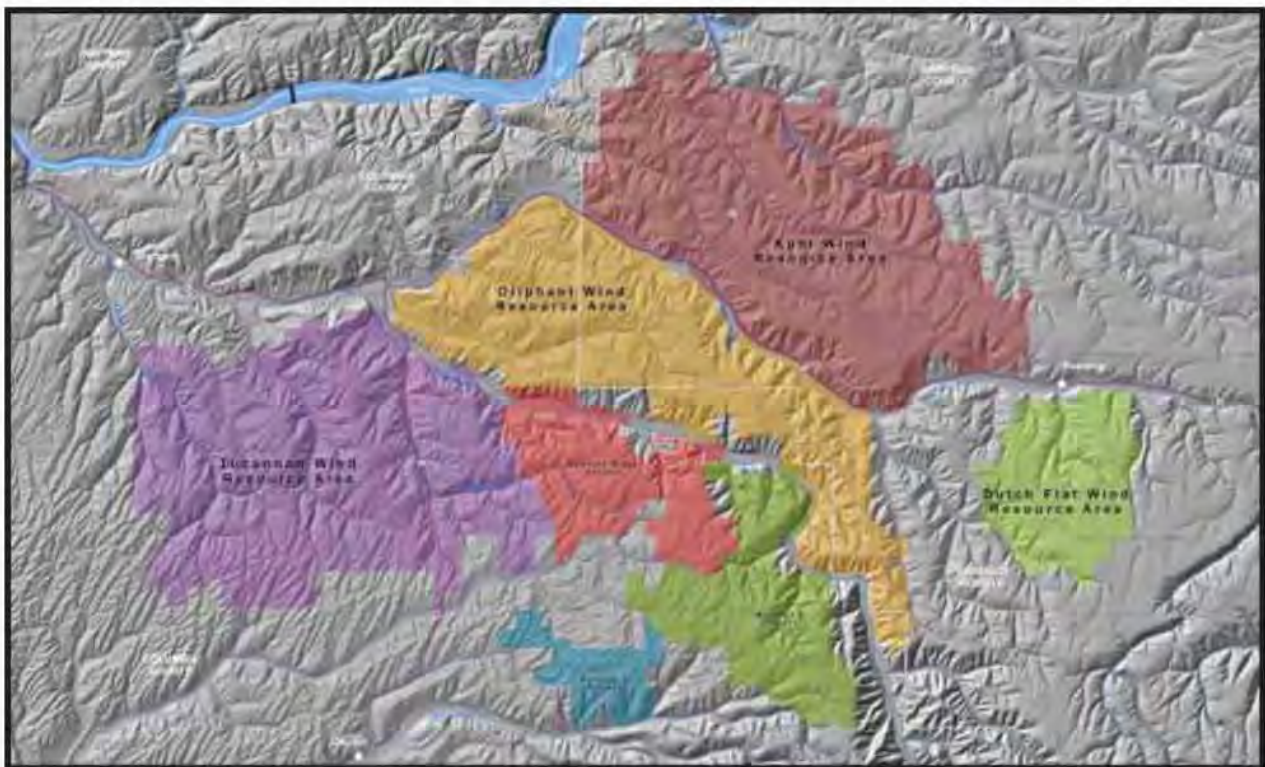


Figure 1. LSRWP Wind Resource Areas.

1. **Tucannon WRA** consists of approximately 41,500 acres in Columbia County with a potential generation capacity of approximately 520 MW
2. **Dutch Flats WRA** consists of approximately 10,000 acres in Garfield County with a potential generation capacity of approximately 150 MW
3. **Kuhl Ridge WRA** consists of approximately 39,900 acres in Garfield County with a potential generation capacity of approximately 400 MW
4. **Oliphant WRA** consists of approximately 32,700 acres in Garfield and Columbia counties with a potential generation capacity of approximately 367 MW.

The four wind resource areas have a potential combined generation capacity of over 1,400 megawatts.

The WRAs are not distinct project areas, nor do they directly correlate with proposed construction phases, but are rather sections of the LSRWP separated by natural and human-made features within which development activities such as wind resource evaluation, land lease negotiations, and environmental studies were initiated at different times. Development and construction will occur in multiple phases with each phase of the project encompassing areas in one or more of the WRAs. The phasing of the development and construction of the LSRWP is not intended to coincide with the WRAs and the size and geographic boundaries of each phase are being determined during the development process.

Phase I

Phase I of the LSRWP ("Phase I") or ("Project") encompasses portions of the Kuhl Ridge and Oliphant Ridge wind resource areas as depicted in the figure below.



Figure 2. Phase I of LSRWP.

When constructed Phase I will be a 342.7 megawatt ("MW") wind power generation facility located on an approximately 39,600 acre site in western Garfield County, Washington and bordering Columbia County. The Project is located approximately 10 miles northwest of

the City of Pomeroy, Washington in Garfield County and 15 miles northeast of the City of Dayton, Washington in Columbia County. The nearest airports are in Walla Walla, Washington and in Lewiston, Idaho. The Project site is located generally west of Highway 127 and south of Highway 12 and is bisected by the Pataha River valley making the north portion and the south portion of the Project geographically distinct from one another. The geographic center of the project area is generally in the vicinity of the junction of Highway 12 and Highway 127 known as Dodge Junction. The Project layout is shown in Figure 3.

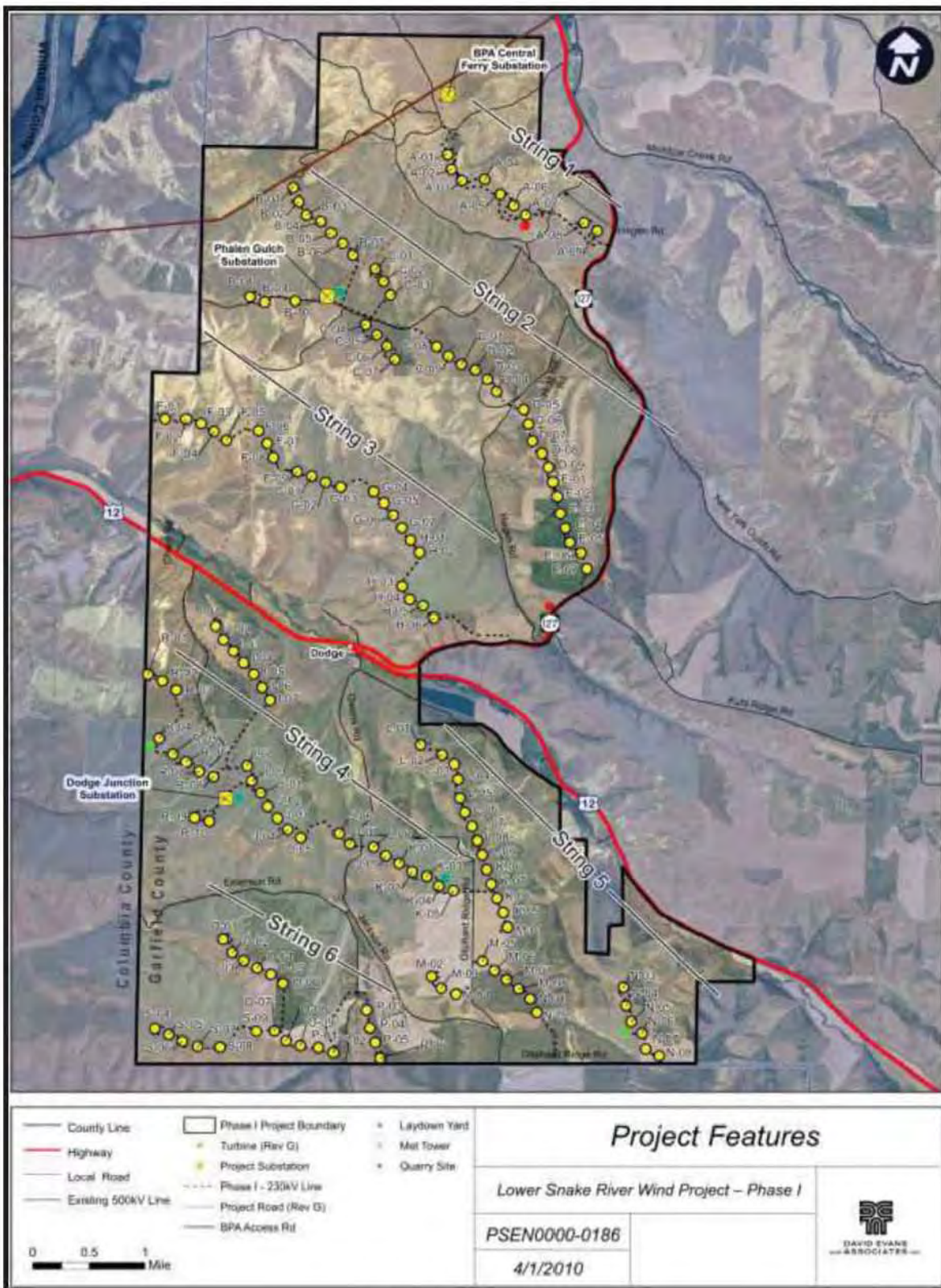


Figure 3. Phase I Layout

A. Project Infrastructure

The Phase I project will consist of 149 Siemens SWT-101 2.3 MW wind turbine generators ("WTGs") that will be electrically connected to two project substations. Sixty six (66) WTGs will be connected to the Phalen Gulch Substation located in the north portion of the Project and 83 WTGs will be connected to the Dodge Junction Substation located in the southern portion of the Project.

The facilities, equipment, and features to be constructed as part of Phase I include the following:

- a) Approximately 38 miles of new roads for construction and maintenance of the wind turbines.
- b) Improvements to approximately 5 miles of existing county roads.
- c) 149 wind turbine generators erected on tubular steel towers with pad mounted step-up transformers located adjacent to the towers.
- d) An underground electrical collection system consisting of approximately 64 miles of buried 34.5-kV electrical power lines between turbines and the two project electrical substations.
- e) Two Project electrical substations to step up voltage to 230 kV for project transmission.
- f) Approximately 8 miles of 230-kV overhead transmission lines connecting Phase I to the regional electrical grid. This connection occurs at a new Central Ferry Substation being constructed by Bonneville Power Administration ("BPA"). Phase I includes most of the access road needed to construct and operate BPA's substation, but not the substation itself.
- g) An Operations and Maintenance Building located just east of the City of Pomeroy.
- h) A Supervisory Control and Data Acquisition ("SCADA") communication system that will connect communications between each individual WTG, the project substations, and the BPA communications system.
- i) A microwave communications system for connection of the project communications/SCADA system to the PSE Load Office.
- j) Temporary construction-related facilities including portable concrete batch plant(s), laydown areas, rock quarries, and portable rock crusher.

B. Interconnection

The Project will be interconnected to the BPA's Little Goose–Lower Monument #1 and #2 transmission lines. In addition to the Project-specific substations, the new BPA Central Ferry Substation is being constructed by BPA at the northern boundary of Phase I for this purpose (see Figure 3). The Central Ferry Substation will provide interconnection for up to 1,250 MW of wind power generation from the LSRWP. Central Ferry will step-up the 230 kV project transmission to 500 kV for transmission on the BPA grid. BPA is responsible for the design, construction, and operation of this new substation. Central Ferry will be designed to accommodate the LSRWP as well as possible expansion for other future regional wind development.

C. Construction Timing

Construction activities have commenced in April 2010 with a limited notice to proceed issued to RES for construction of the Central Ferry access road in order to facilitate BPA's construction schedule. A full notice to proceed will be issued in early May after anticipated Board approval and execution of the BOP Agreement. Final completion is expected by July of 2012. Construction in 2010 includes the project roads and turbine foundations. In 2011, the wind turbine generators will be erected, along with construction of the electrical system including project substations. Phase I operation is scheduled to begin mid-April 2012.

Phase I, generally, will be constructed in the following sequence:

- a) Erosion control Best Management Practices ("BMPs") (2010)
- b) Topsoil stripping, clearing, and stockpiling (2010)
- c) Rough grading of roads and turbine sites (2010)
- d) Construction of foundations (2010)
- e) Overwinter site stabilization (winter 2010 – 2011)
- f) Construction of project substation (2011)
- g) Construction of electrical collection system (2011)
- h) Construction of project transmission lines (2011)
- i) Turbine erection (2011 – 2012)

- j) Turbine commissioning (2011 – 2012)
- k) Finish grading, topsoiling, and revegetation (2012)

Exhibit D

Diagram of Transaction and Principal Contractual Relationships

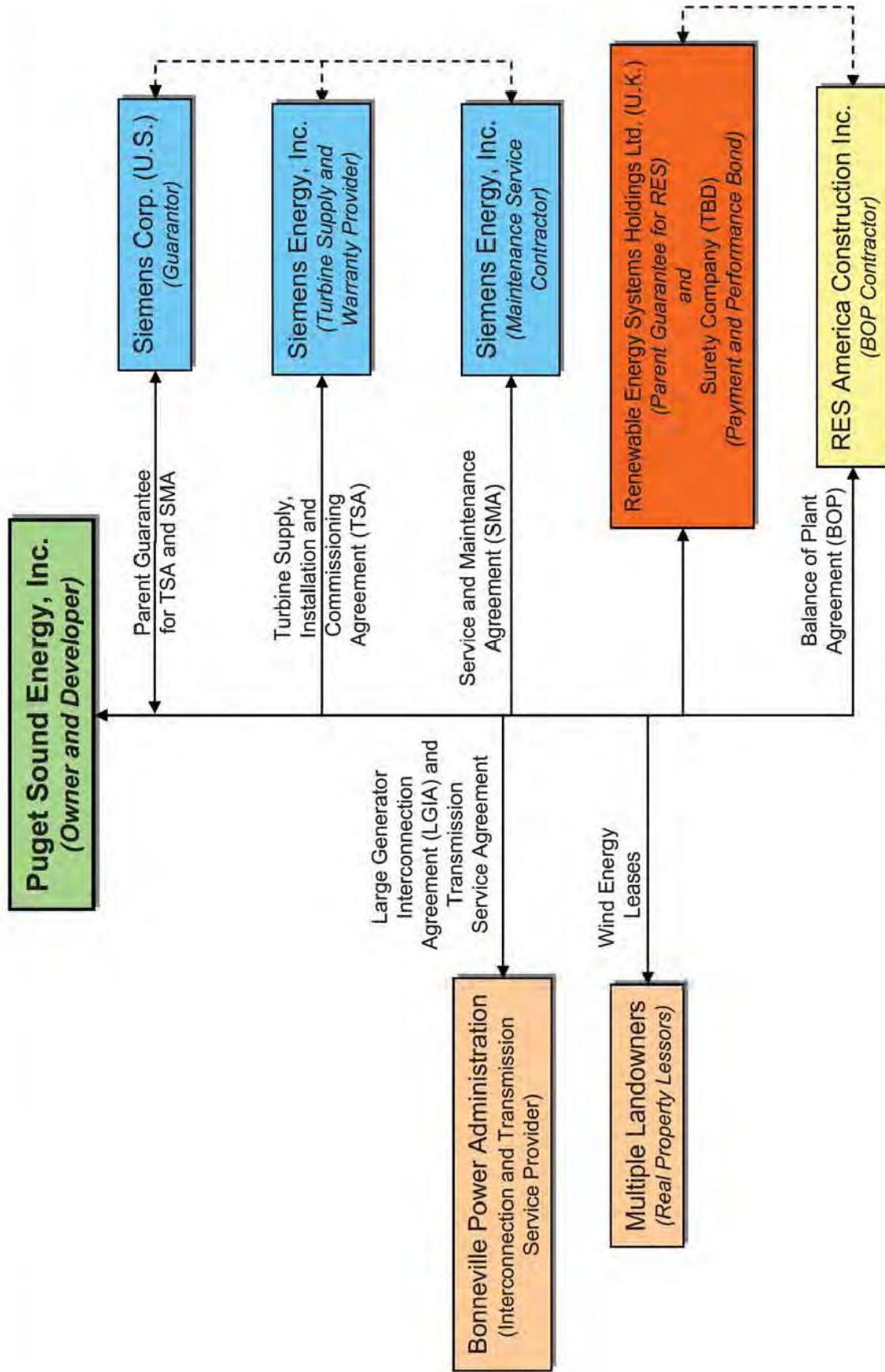


Exhibit E

Summary of Principal Project Agreements

Exhibit E Summary of Principal Project Agreements**Construction of Phase I of the Lower Snake River Wind Power Project****A. Overview of Material Contracts**

Pursuant to two development right purchase transactions completed in December 2008 and August 2009, PSE acquired all of the development rights and assets of Blue Sky Wind LLC, an affiliate of RES America Developments Inc., relating to a wind-powered electric generation facility or facilities to be situated on portions of approximately 120,000 acres of land located in Garfield County and Columbia County, Washington. PSE paid an aggregate purchase price of \$ [REDACTED] million for the development rights to one or more wind power facilities with an aggregate potential name-plate capacity of approximately 1,250 MW (referred to as the "Lower Snake River Wind Project", or "LSRWP"). Currently under consideration is the construction of a 342.7 MW portion of the Lower Snake River Project, on approximately 39,600 acres of leased land, consisting of 149 Siemens SWT 2.3 MW wind turbine generators (each, a "WTG") and the associated electrical collection systems and other interconnection facilities. (In this summary, use of the term "Project" refers only to this 342.7 MW "Phase I" of the larger Lower Snake River Wind Project.)

PSE will acquire 149 WTGs for the Project and contract for their supply, transportation, erection, testing and commissioning pursuant to a **Wind Turbine Supply, Installation and Commissioning Agreement ("TSA")** with Siemens Energy, Inc. ("Siemens"), a North American energy affiliate of Siemens AG. The purchase price for the necessary WTGs, their transportation, erection, and all requisite testing and commissioning is approximately \$ [REDACTED] million, payable in installments over the projected 18 months (approximately) of performance. See Section B, Turbine Supply Agreement, below, for specific payment amounts and triggers.

Also subsequent to the placing of the WTGs into service, Siemens will provide five years of maintenance, spares parts and service of the WTGs under a separate **Service and Maintenance Agreement ("Service Agreement")** between PSE and Siemens. Under an availability guarantee, Siemens will guarantee that measured average availability is at least [REDACTED] during the five-year service period, measured annually. The Service

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Agreement provides for financial compensation to PSE in the event that there are shortfalls in warranted availability.

Siemens Corporation, Siemen's U.S. corporate parent, will guaranty all of the obligations of Siemens under the TSA and the Service Agreement. The obligations of PSE under the Turbine Supply Agreement will not be guaranteed by any PSE affiliate.

PSE will contract for the engineering, procurement and construction of the Project with RES America Construction Inc. ("RES") pursuant to a ***Balance of Plant Agreement ("BOP Agreement")***. (PSE is obligated to contract with RES for the construction of the Project pursuant to the terms of that certain Construction Rights Agreement among RES and PSE dated as of August 5, 2009, entered into in connection with the original purchase of development rights for the Lower Snake River Wind Project.) The BOP Agreement will not govern the procurement or installation of the Project's WTGs, which will be purchased and erected pursuant to the Siemens turbine supply agreement, as noted above. RES may, in turn, contract with various subcontractors for the engineering and construction of all civil and electrical facets of the Project (such as the roads, WTG foundations and the electrical collection system).

Set forth below is a synopsis of the principal terms of the major documents with respect to the proposed transaction.

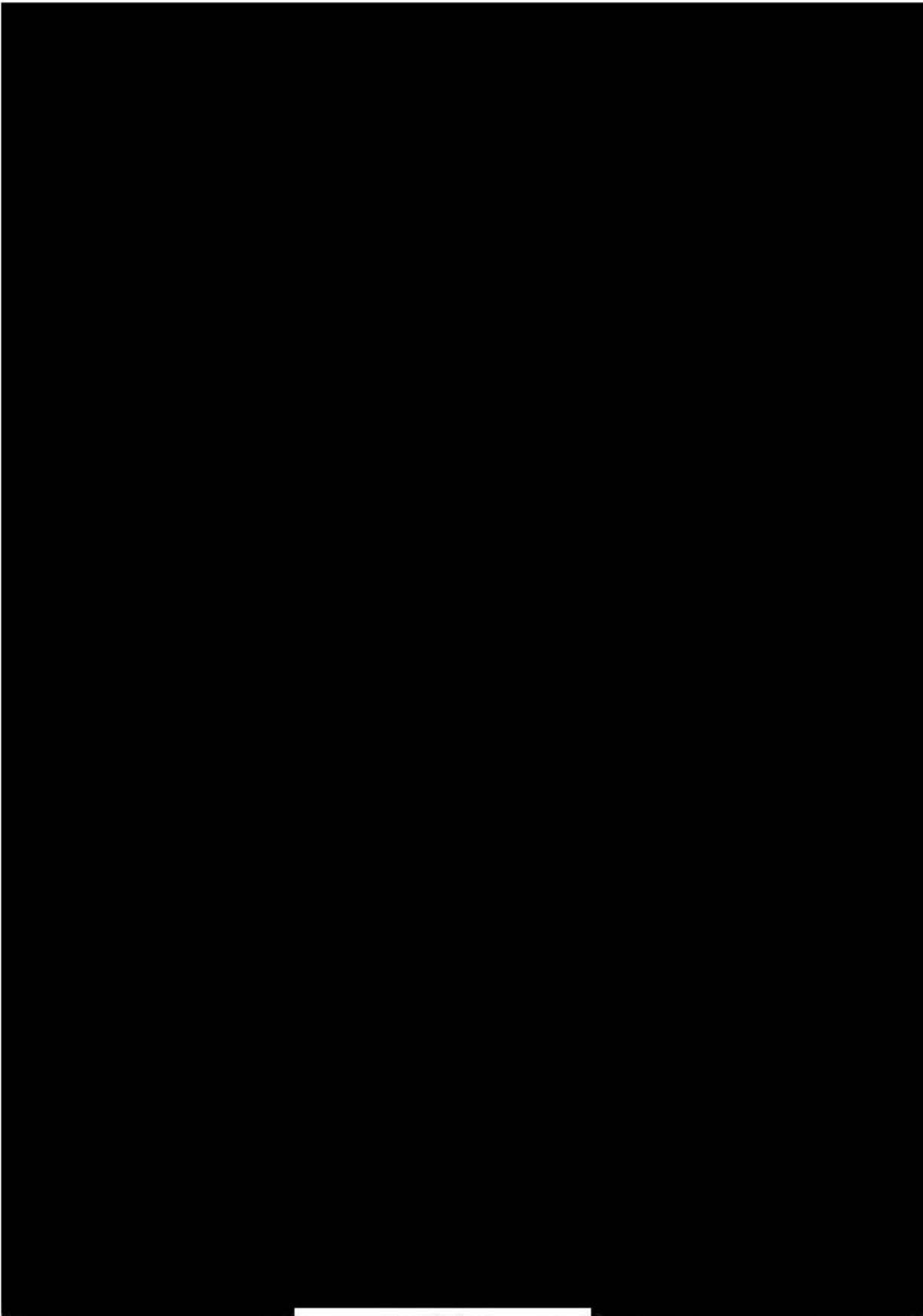
B. Turbine Supply Agreement

PSE intends to purchase WTGs from Siemens pursuant to the TSA. Siemens will be obligated to provide PSE with a supply of 149 WTGs and to erect and commission such turbines.

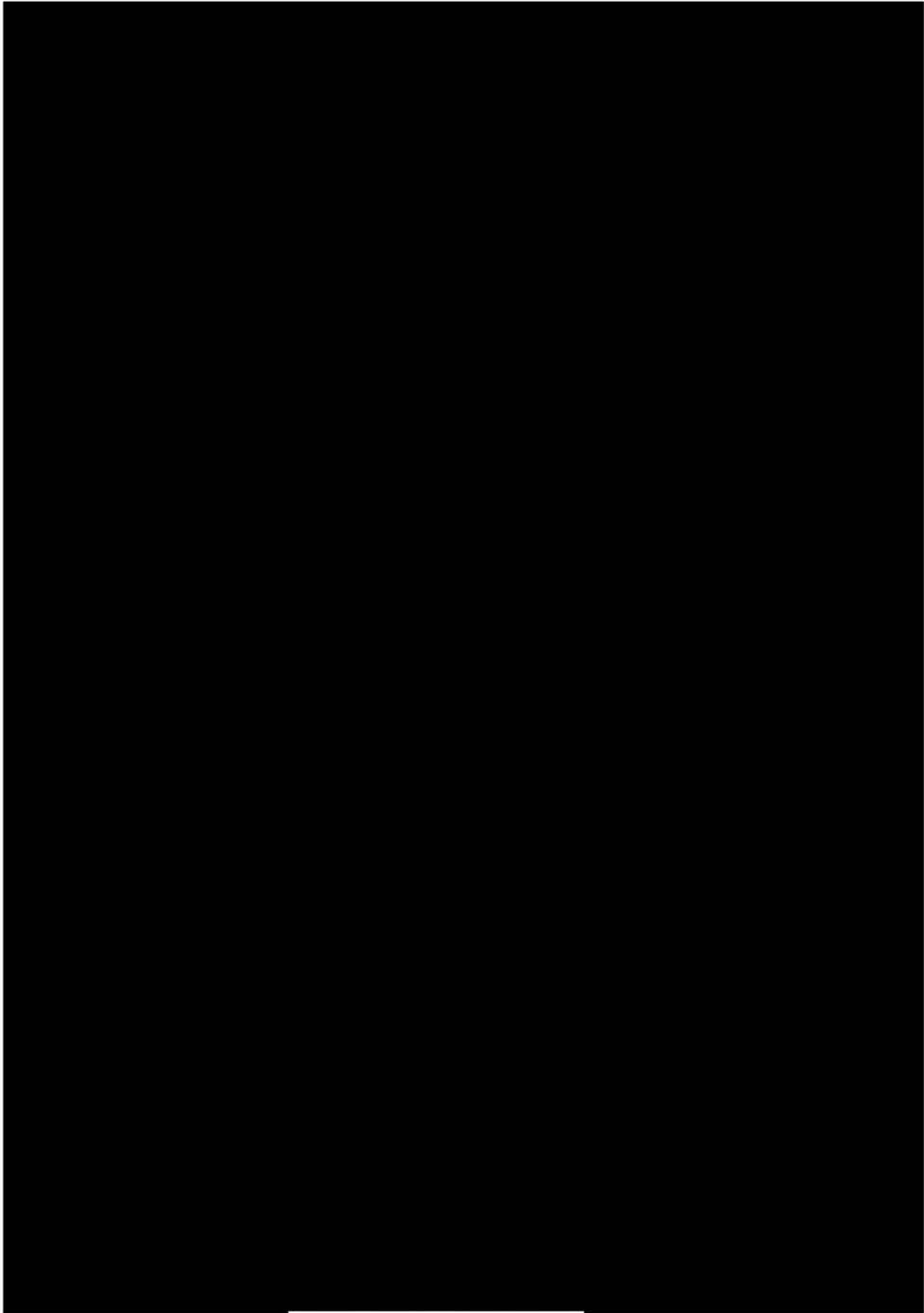
The principal provisions of the TSA are as follows:

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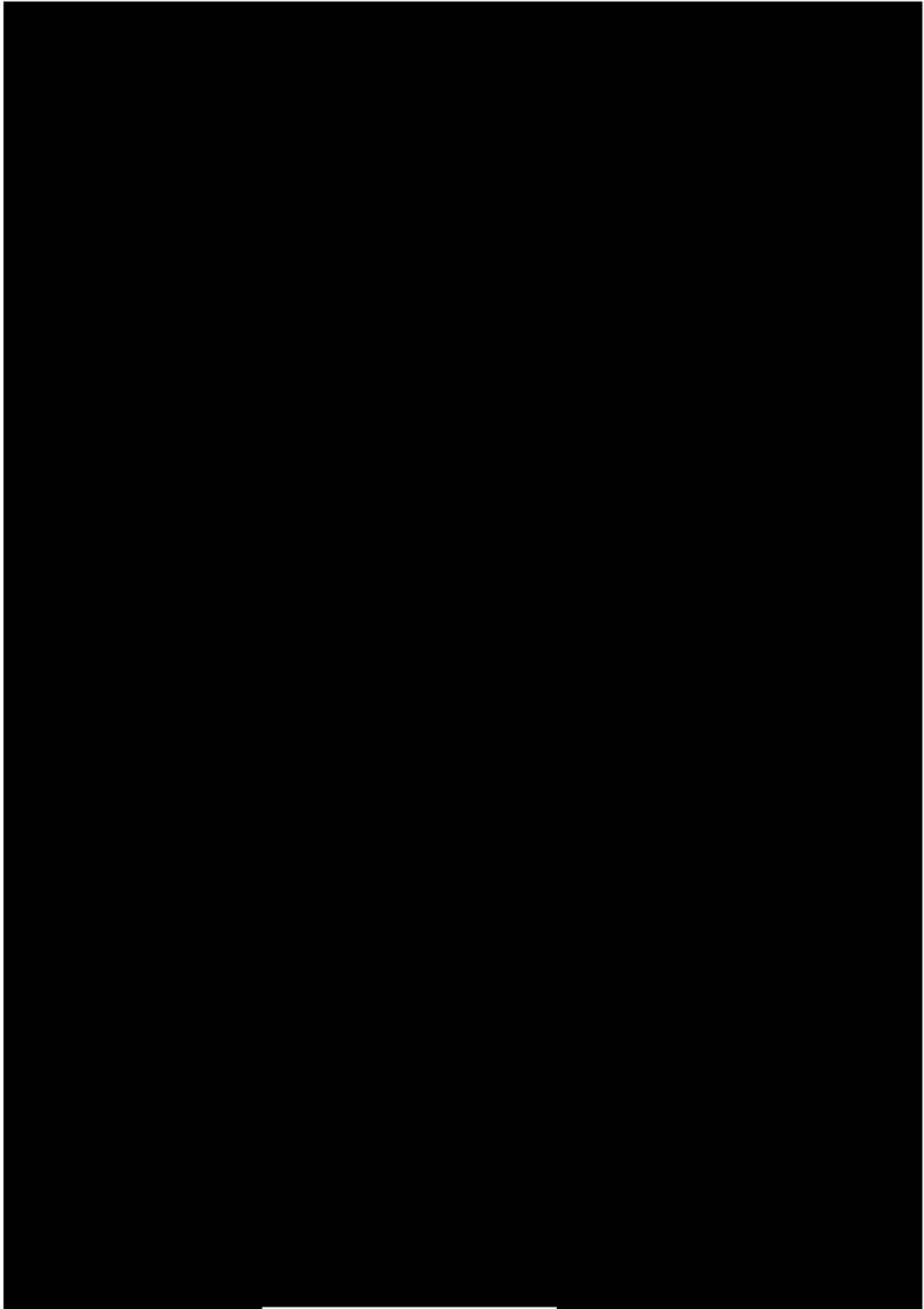
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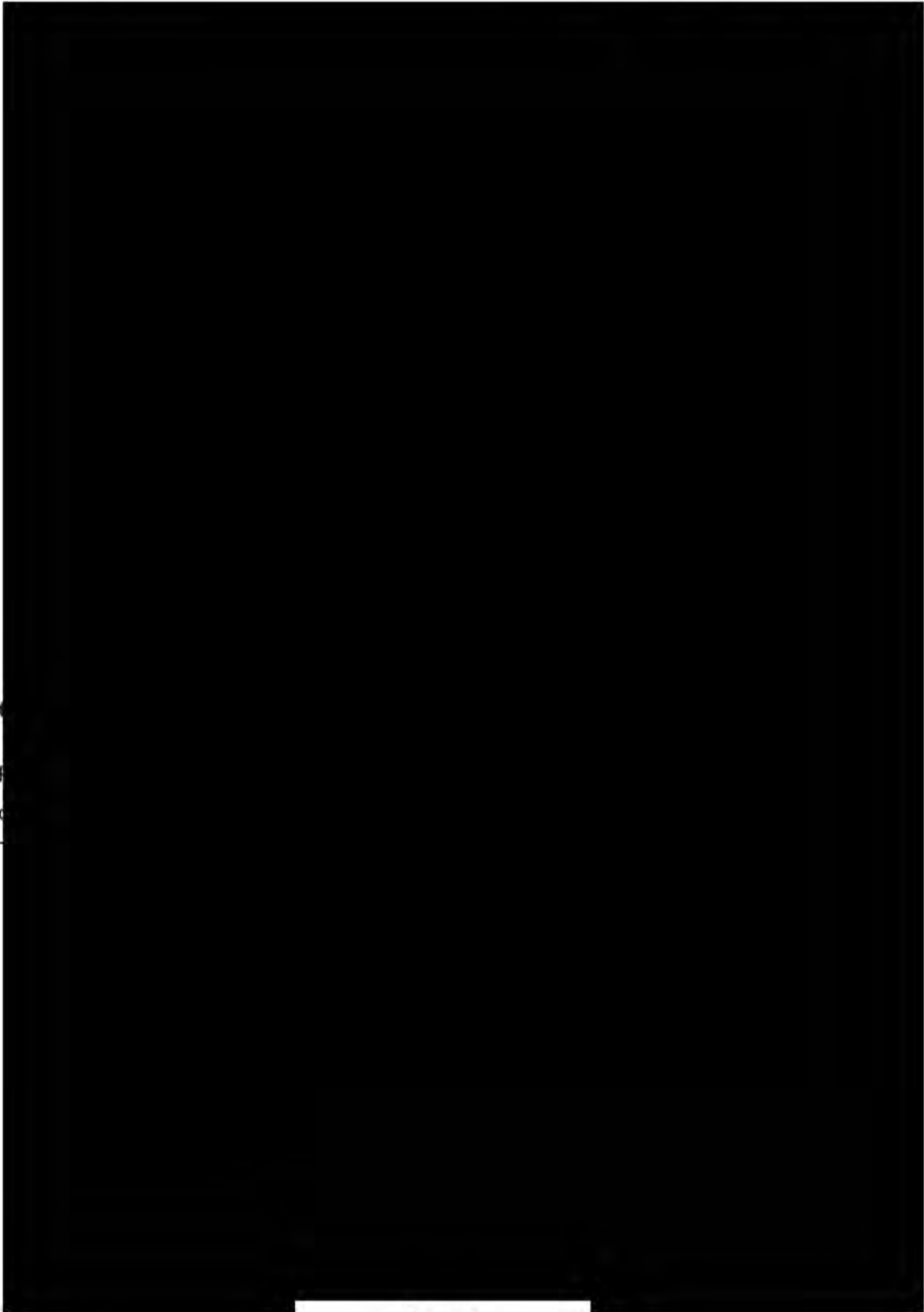
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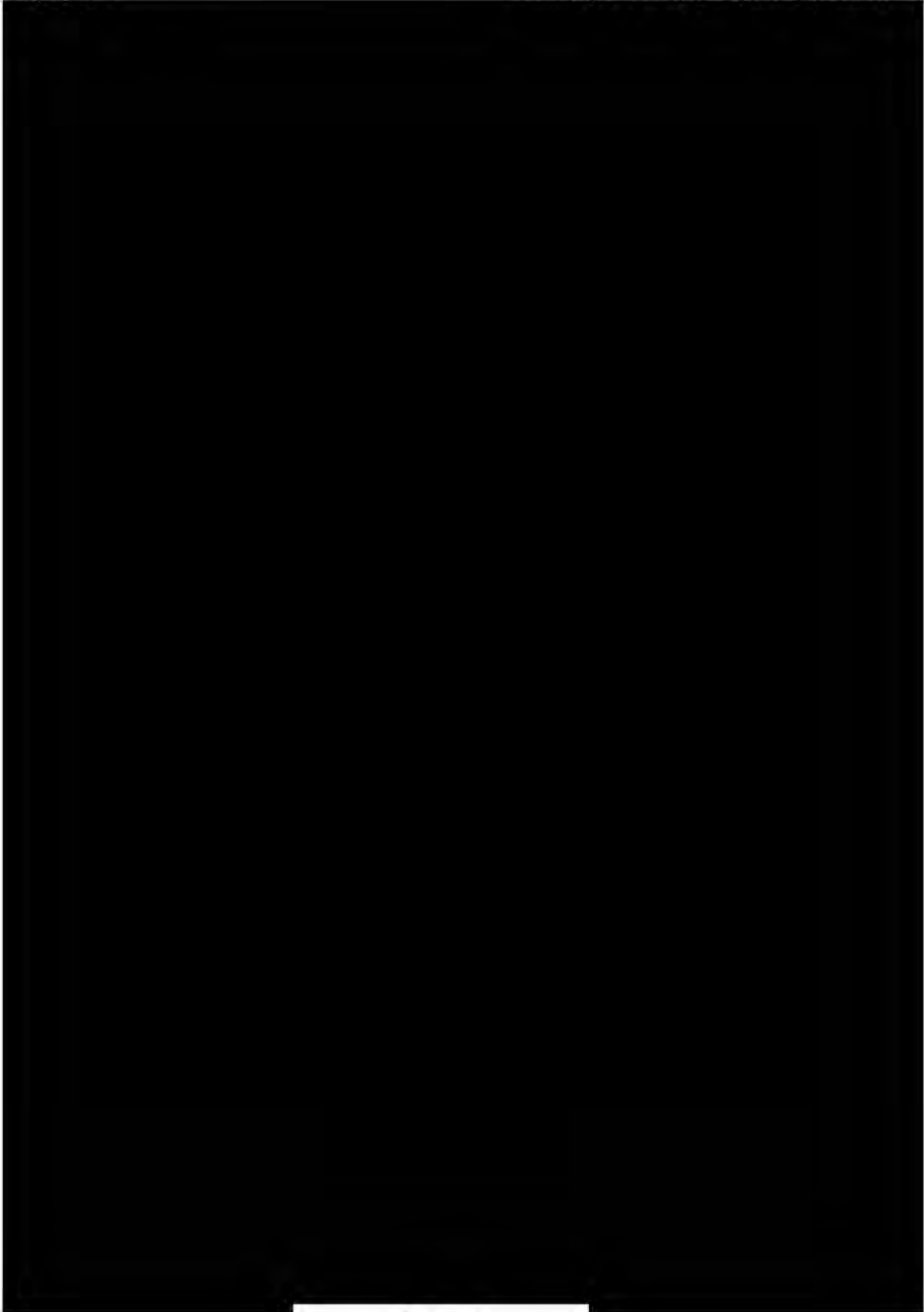
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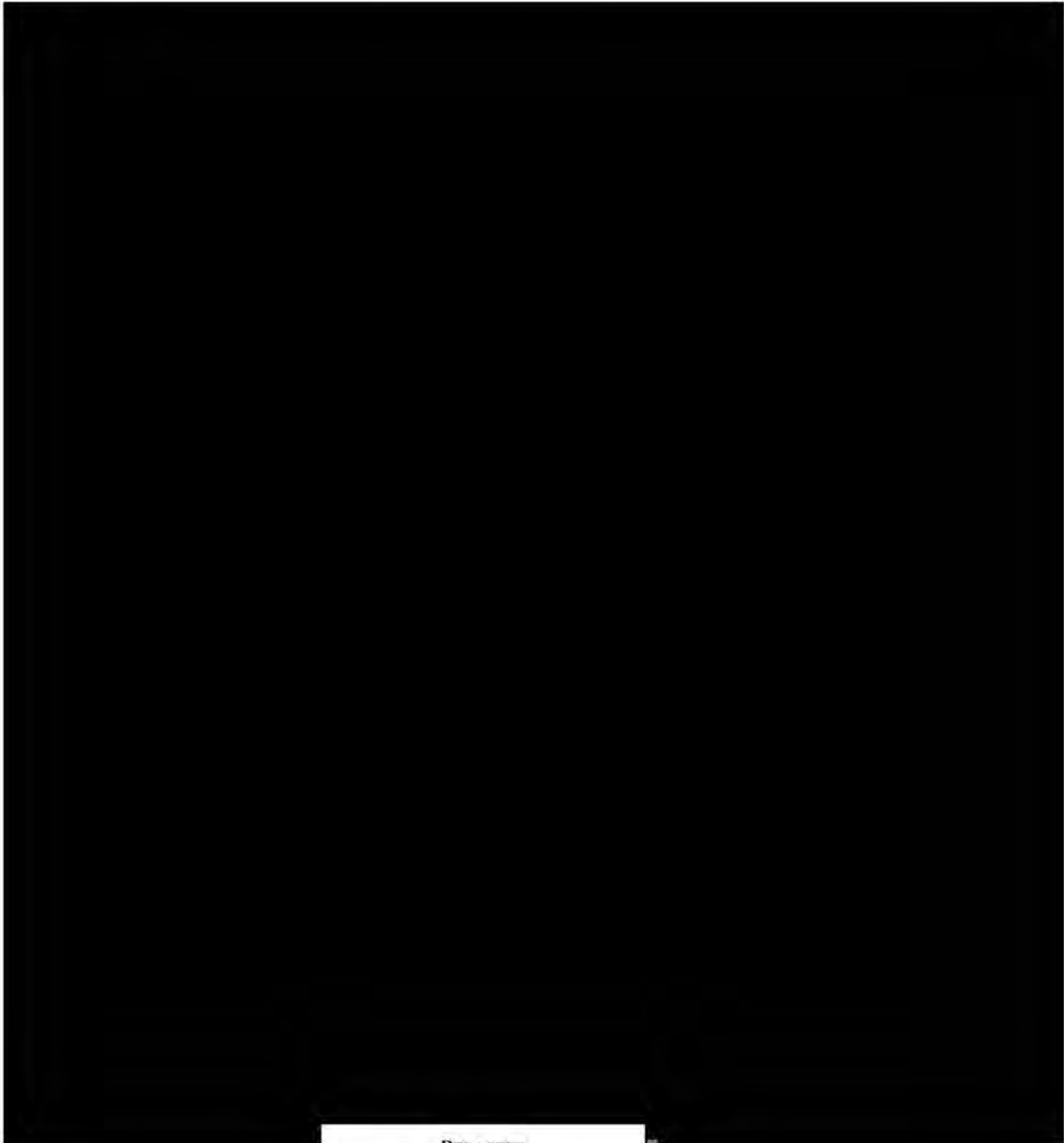
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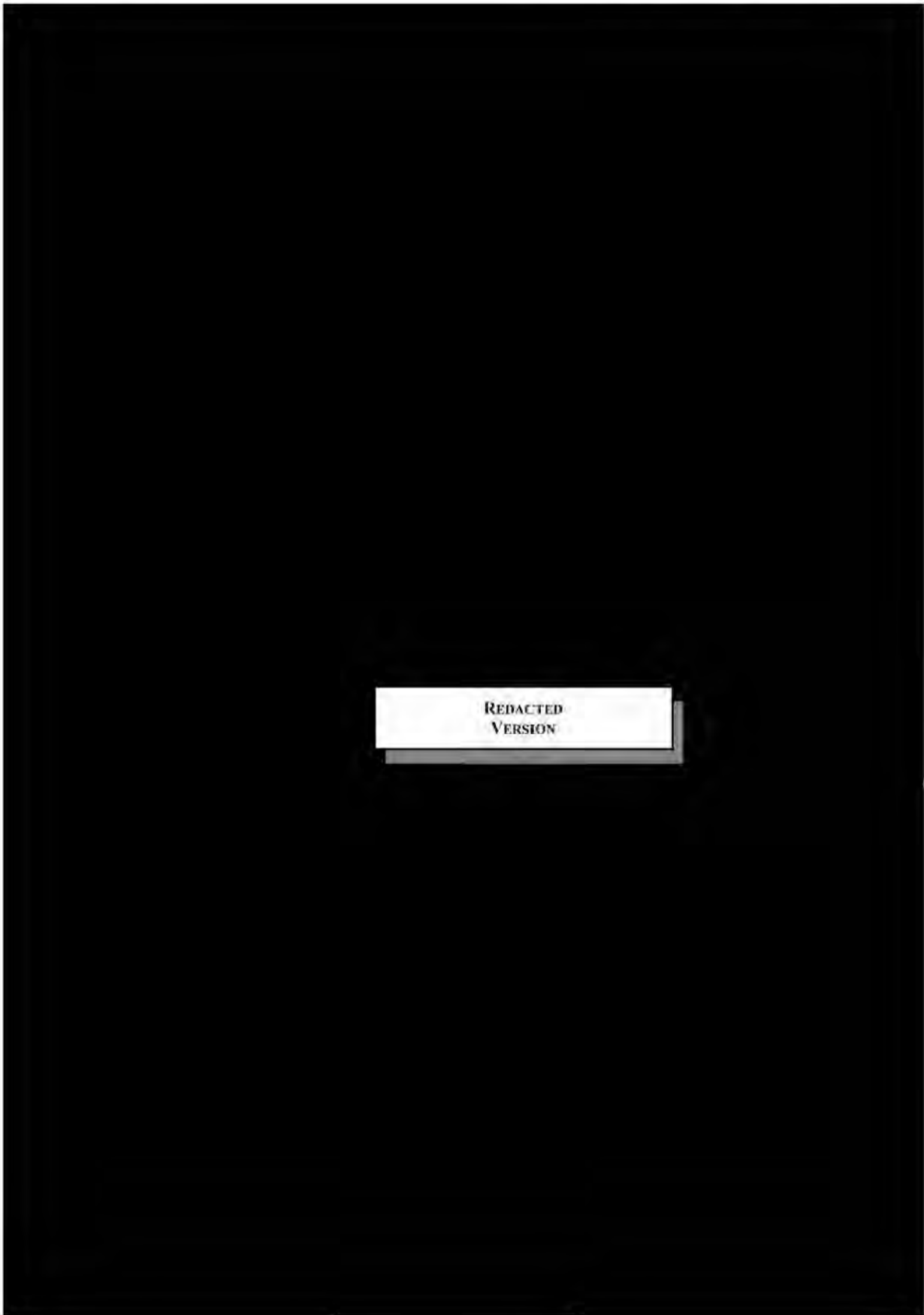
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D. Balance of Plant Agreement

The BOP Agreement sets forth the terms upon which RES will perform certain work and services and provide certain equipment, materials, supplies, labor and services for the Project. Some of the principal provisions the BOP Agreement includes are summarized briefly below:

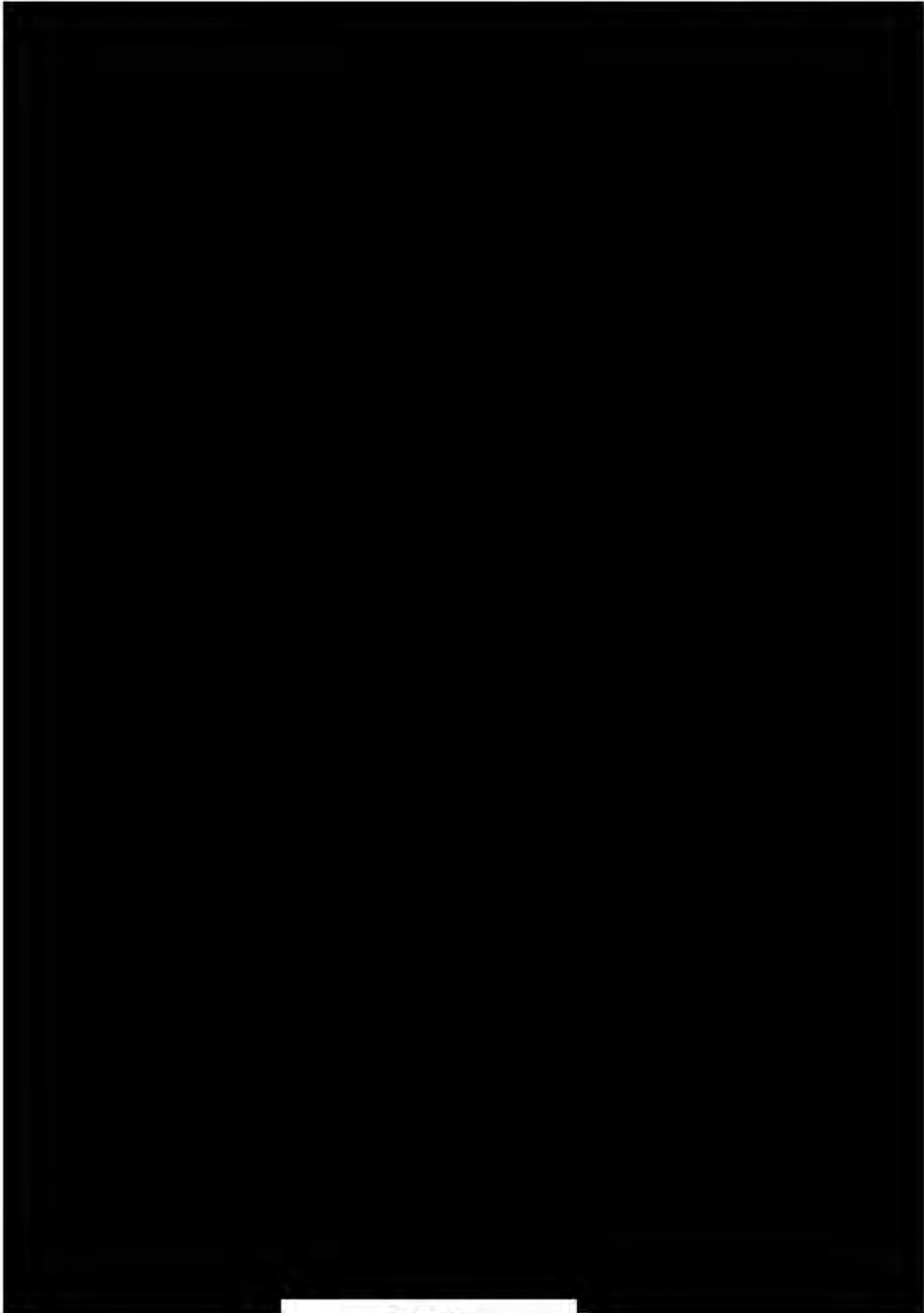


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E. Interconnection Agreement

1. The interconnection of the Project to the transmission system of the Bonneville Power Administration ("BPA"), the provider of transmission services to PSE's service territory, will be made pursuant to a **Standard Large Generator Interconnection Agreement ("LGIA")**. The LGIA will govern the terms and conditions by which the Project may interconnect with BPA's bulk transmission system, and obligates PSE to fund approximately \$102 million of the construction costs of BPA's planned 500 kV Central Ferry substation and associated transmission network system upgrades (of which approximately \$38 million has been paid by PSE to date). Approximately 97.5% of the amounts paid to BPA by PSE will be credited back to PSE by BPA against transmission service costs that would otherwise be due over a period of years following commercial operation of the Project.

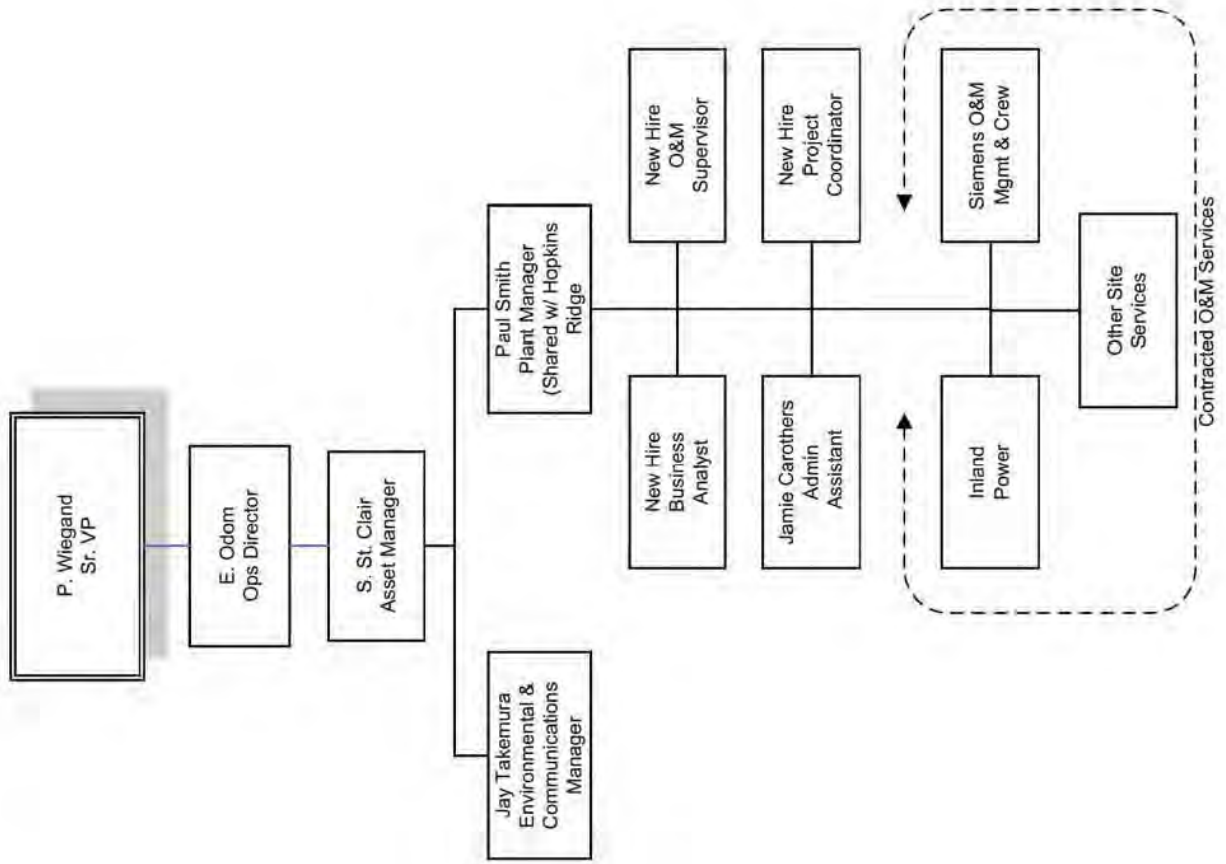
F. Other Agreements

Completion of the Project may require the Company to enter into a number of other agreements, possibly including royalty agreements, leases, transmission service agreements and other matters. To the extent any such agreements have been identified and impose costs, such costs are reflected in the pro forma financial statement for the Project.

Exhibit F

Operations Organization

LSRWP, PHASE I – OPERATIONS ORGANIZATIONAL CHART



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Exhibit G
Project Schedule

Exhibit G Project Schedule

PSE's project schedule (Attachment 1) shows that development, construction, and substantial completion (in-service) of the Lower Snake River Wind Project, Phase I ("Phase I" or "Project") is achievable by April 15, 2012. The Project schedule (including permitting, engineering, negotiations for turbine and interconnection agreements, and construction) is shown in Attachment 1.

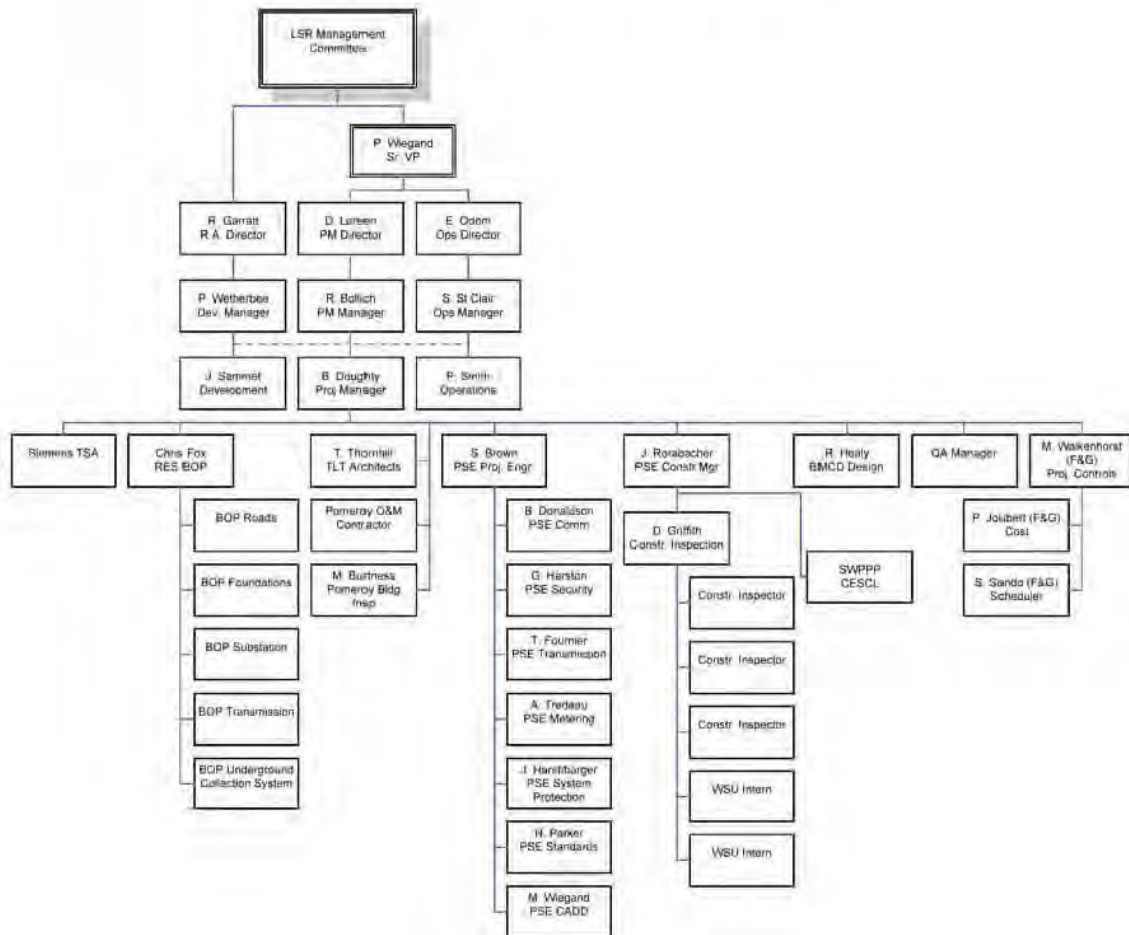
Three key development activities on the Project critical path have been completed, and include:

- 1) Acquisition of a NEPA Record of Decision ("ROD") from BPA, which was issued on January 28, 2010. The ROD is required for BPA to begin construction of the Central Ferry Substation.
- 2) Completion of a Large Generator Interconnection Agreement ("LGIA") with BPA. LGIA negotiations are complete and the Agreement will be executed following Board approval of the Project. The LGIA is required in order to interconnect the Project to BPA's transmission system.
- 3) Acquisition of a Conditional Use Permit ("CUP") from Garfield County, which was issued by the Garfield County Hearings Examiner on November 25, 2009.

PSE's Project Management and Operations teams have previous experience developing, constructing, and operating large scale wind generating facilities in Washington State. Additionally, PSE and RES have experience working together on two previous wind projects. In 2005 PSE and RES constructed the 156 MW Hopkins Ridge Wind Project in Columbia County, in 2006 PSE and Horizon constructed the 229 MW Wild Horse Wind Project in Kittitas County, and in 2009 PSE and RES constructed the 44 MW expansion to the Wild Horse Wind Facility. PSE currently owns and operates both projects.

PSE's Project Management organization is shown in Figure 1.

Figure 1: PSE Project Management Organization

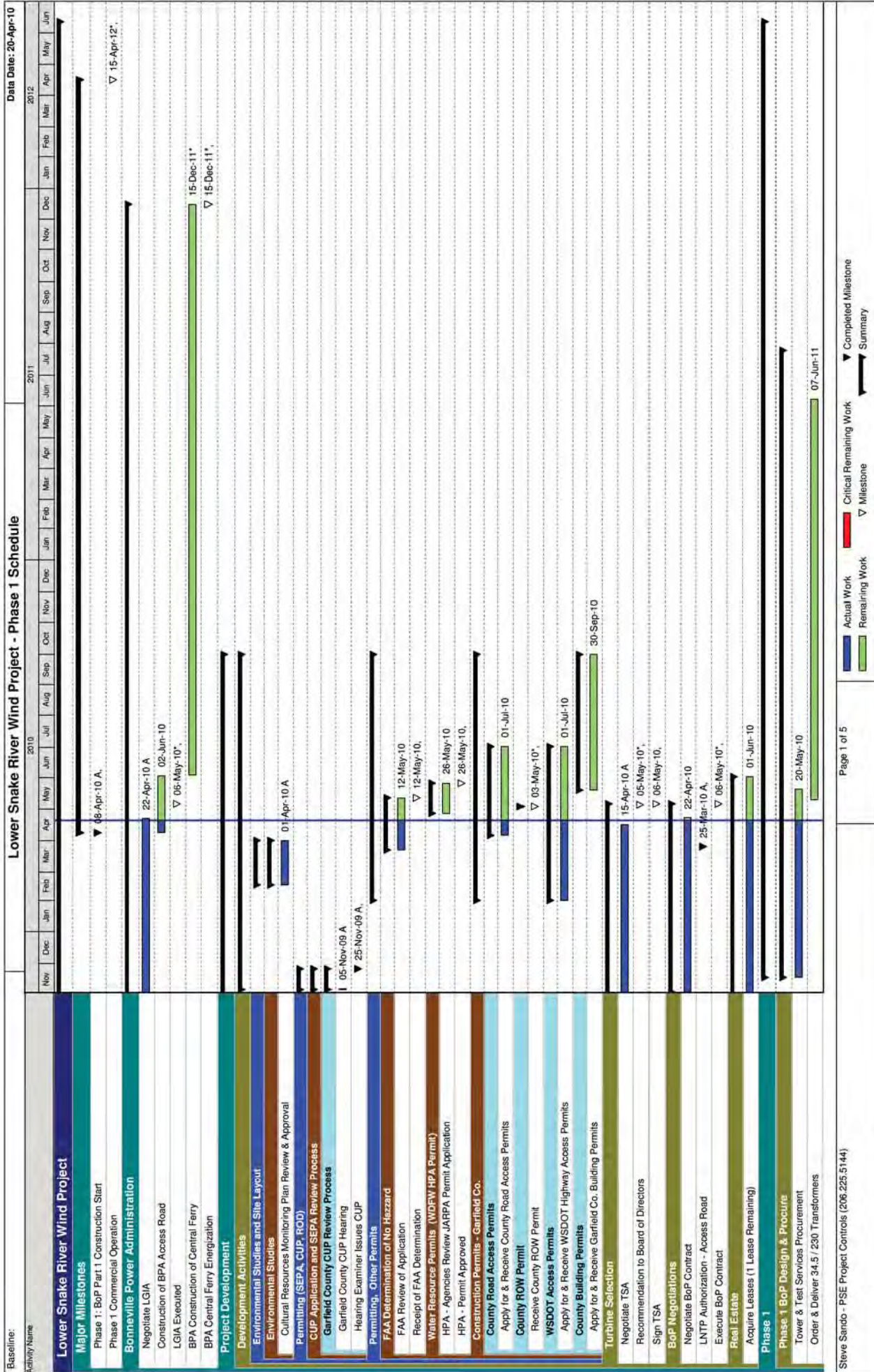


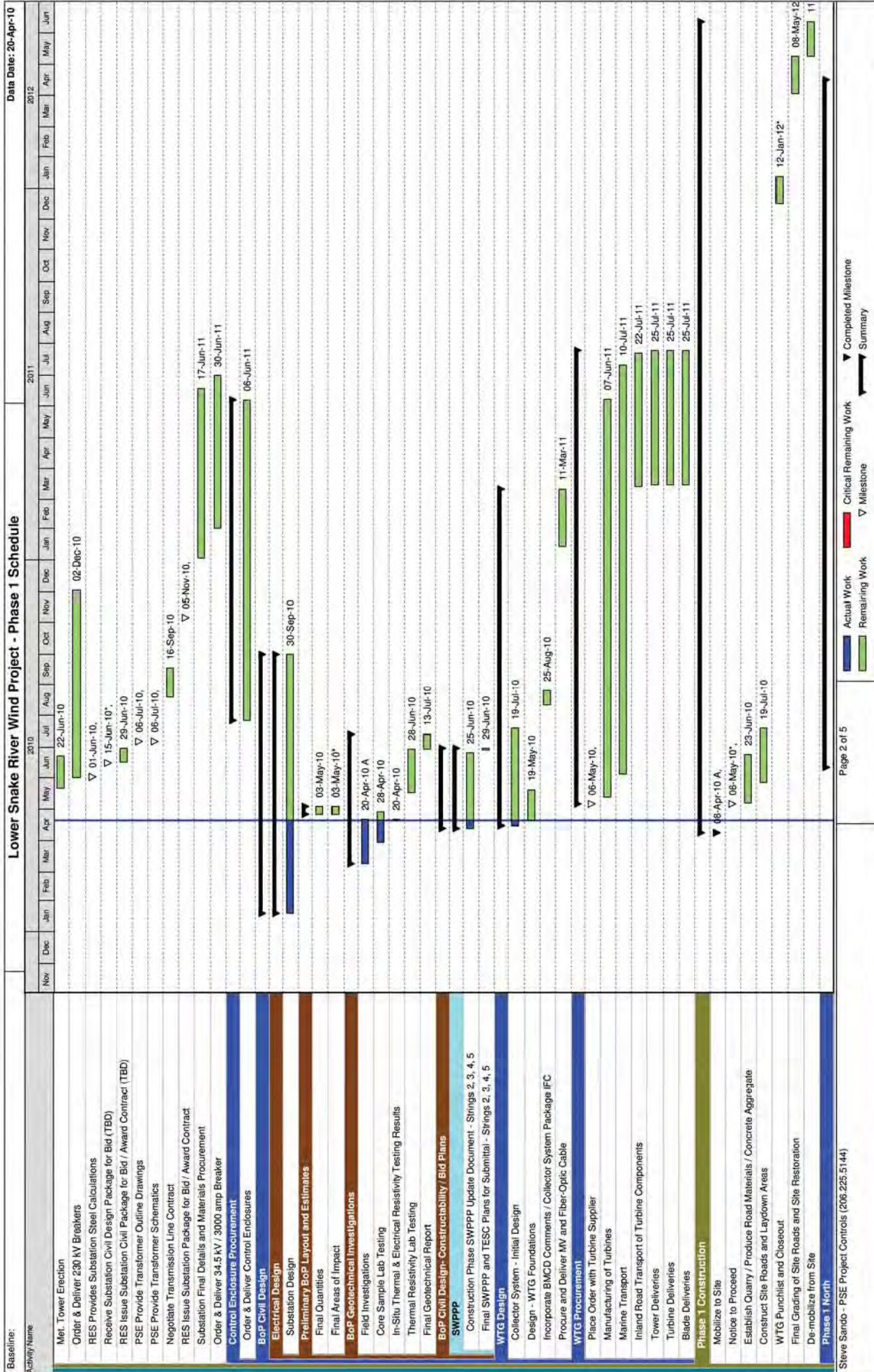
PSE contracted with RES under a Limited Notice to Proceed (“LNTP”) to accelerate construction of the String A access road that also provides earlier access to BPA’s Central Ferry Substation site to accelerate BPA’s process in support of PSE’s schedule needs. The LNTP was executed on March 25, 2010 and construction of this access road commenced on April 5, 2010.

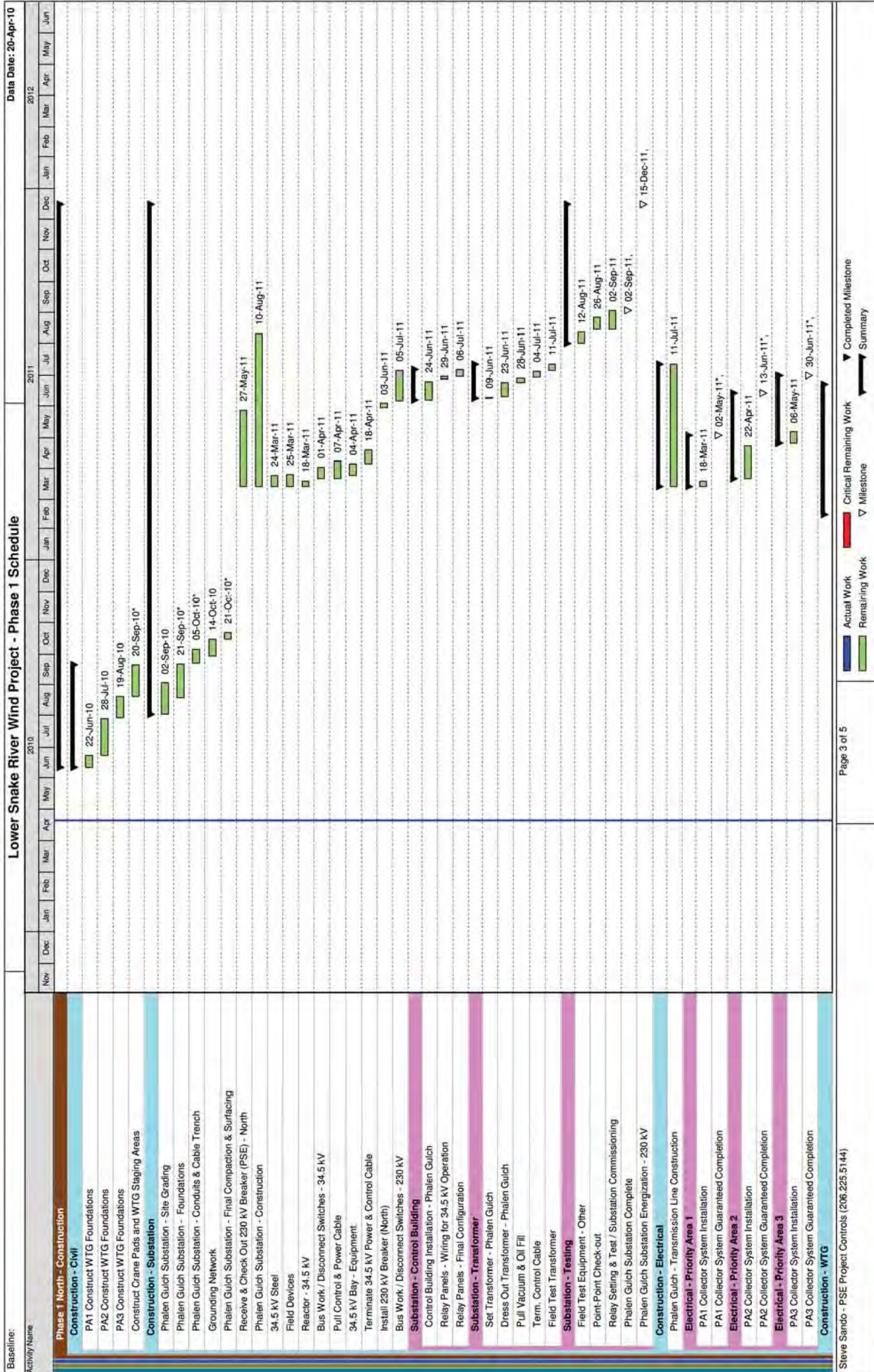
RES will serve as Balance of Plant (“BOP”) contractor for the Project. Upon Board approval for Phase I, PSE will execute the BOP Agreement with RES and issue the Notice To Proceed. At that time and until December 2010, RES will build the roads, laydown areas, crane pads, WTG staging areas, and WTG foundations. Beginning in January 2011 through the end of 2011, RES will complete construction of the electrical collection system. Transmission line construction will take place from March to July 2011.

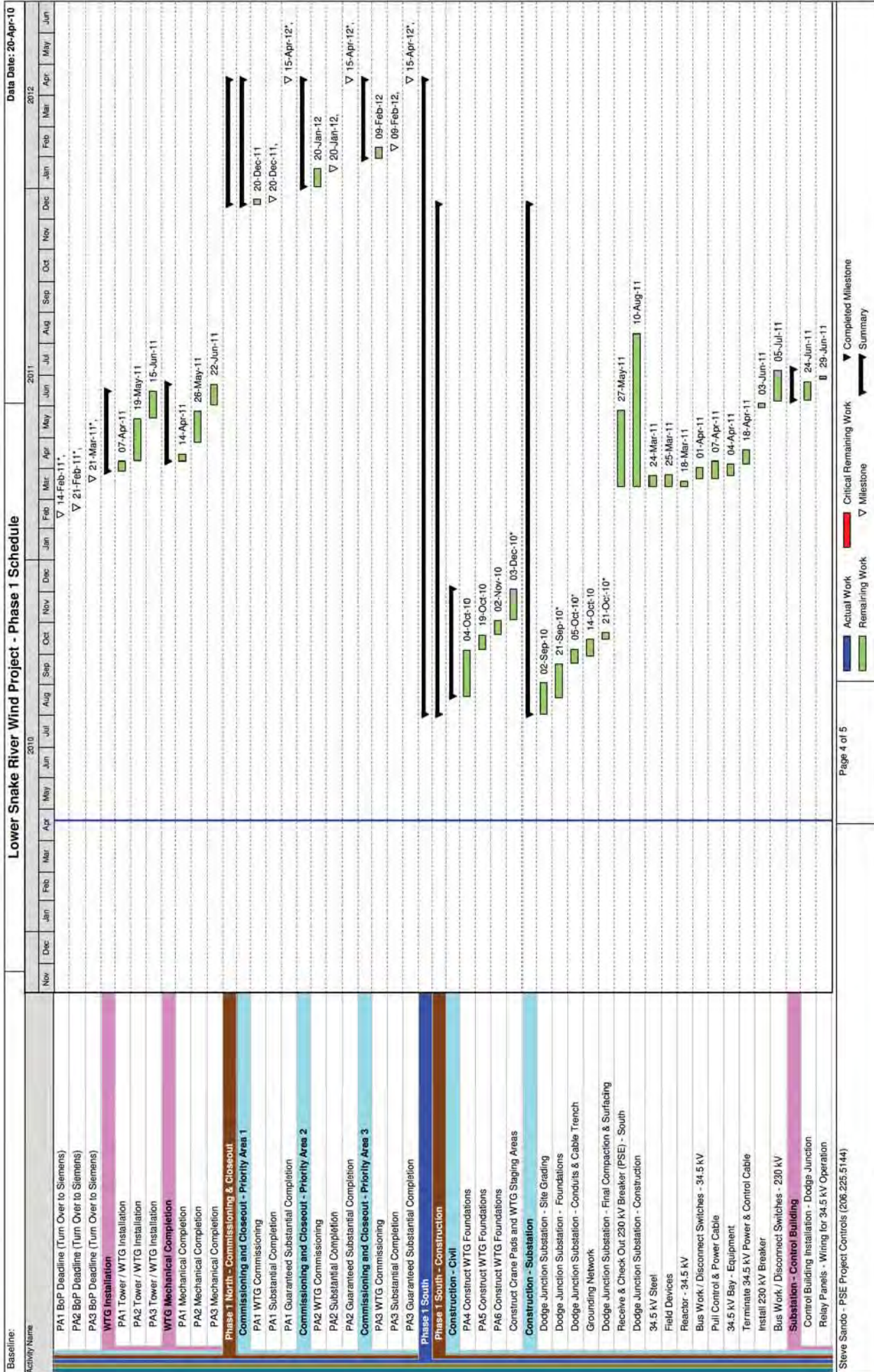
Siemens has been selected as the WTG supplier and erector and will begin delivery of turbine components in March 2011. Construction of turbine foundations will take place from April to July of 2010, followed by turbine erection from March to August 2011. Concurrently, construction of the two project substations will begin in July 2011, with an energization date scheduled for August 2011 and completion in September 2011. The construction schedule is timed to avoid heavy construction activity during winter months when high moisture levels, snow melt, and adverse weather conditions can lead to Project delays.

Substantial completion for the northern portion of the Project is scheduled for July 2011, followed by September 2011 for the southern portion. Turbine commissioning and closeout for the northern portion will take place from August to December 2011 and from October 2011 to April 2012 for the southern portion. All turbines are expected to be interconnected to BPA's Central Ferry substation by April 15, 2012.









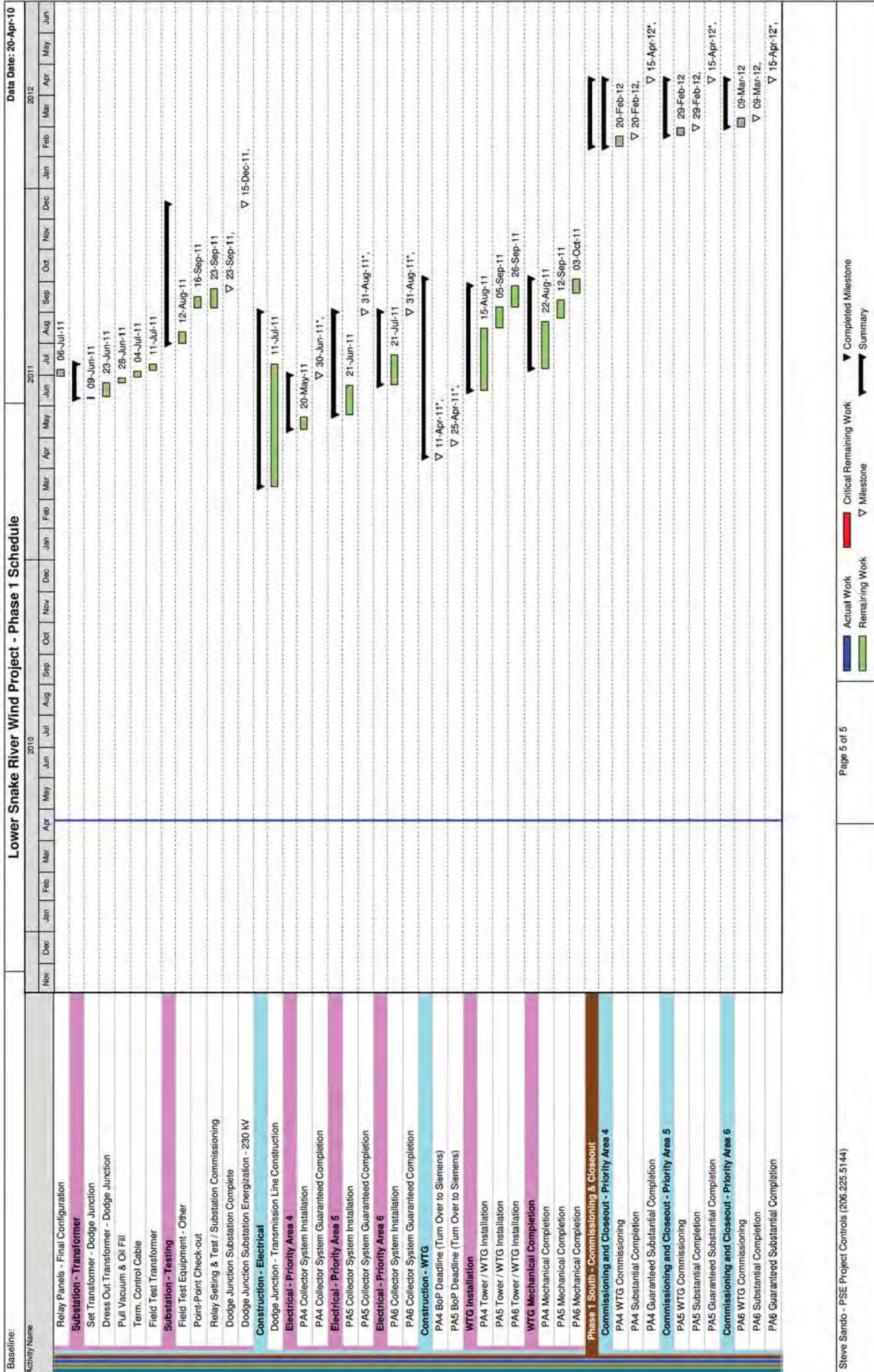


Exhibit H
Permitting

Exhibit H Permitting

PSE has completed an environmental review for the Lower Snake River Wind Project ("LSRWP") and has obtained a Conditional Use Permit ("CUP") from Garfield County allowing for construction and operation of Phase I of LSRWP ("Phase I" or "Project") along with future Phase IV and V. PSE chose to initiate environmental and land use review in Garfield County due to strong local support for wind power, comprehensive plan and zoning code provisions for renewable energy projects, capable and experienced County staff, and its proximity to the transmission line interconnection point. Also important to the success of the permitting strategy was having Garfield County as the "lead agency" for preparation of the LSRWP Environmental Impact Statement ("EIS") and Columbia County participating as a cooperating agency.

A. Garfield County Conditional Use Permit

The Garfield County Hearing Examiner presided over a November 5, 2009 Open Public Record Hearing to receive the Garfield County staff report, listen to the applicant presentation, and receive comment from the public and agencies. The complete public record, including 39 letters of comment, was reviewed and oral comments were received from 13 individuals. Twelve spoke in favor of the project and one in opposition. On November 25, 2009 the Hearing Examiner granted approval of the CUP subject to the conditions as generally described below and as specifically listed in CUP Number 012609. A 21-day appeal process provided for an opportunity to anyone aggrieved by the Hearing Examiner decision. No appeals were filed. The Project thus has an unappealable CUP.

The CUP establishes conditions of approval that must be met in order to construct and operate the Project and also requires commitments that were established in the EIS process to be incorporated into the Project. The conditions and commitments addressed in the CUP can be summarized in the following categories:

- Comprehensive Project Conditions
- Project Design and Micrositing
- Project Modifications
- Construction

- Operations/Maintenance and Post Construction
- Decommissioning

The comprehensive project conditions include 38 separate plans and permits that must be submitted and approved prior to construction of any phase of LSRWP within Garfield County. The permits required for construction include county, state and federal permits. As lead agency Garfield County will be the final authority in authorizing construction once permit and plan obligations have been met. Phase I will not trigger all of the permits identified in the CUP. For example, Phase I will not disturb any wetland or riparian areas so the Clean Water Act Section 404 permit will not be required. All Phase I permits required under the CUP to satisfy the start of construction have been obtained.

Project design and micrositing requirements include commitments, developed during the EIS process, including provisions for seismic design of the wind turbine foundations, audible noise setbacks, critical areas review, public and private roads, limiting ground disturbance through design and micrositing, use of best management practices for stormwater and erosion control as well as avoidance of wetlands and streams, and protection of groundwater. Commitments also address the protection of wildlife, vegetation including preservation of farmlands, avoidance of geologic hazards (landslide areas etc.), protection of cultural, historical, and visual resources, and public health and safety. The project design and micrositing commitments have been incorporated into the design of Phase I.

Project modifications are allowed through the CUP to add additional permit corridors and to expand the Project. The process involves submitting modifications to the Corridor Site, or expansions of the project area and/or additional accessory uses for review and approval per the Garfield County Zoning Ordinance.

Construction commitments required in the CUP and as identified in the EIS include environmental compliance monitoring; management of traffic and transportation; limiting land disturbance; incorporating best management practices for erosion control, stormwater, noise, dust abatement and air quality; and protection of wildlife, vegetation, cultural resources, and health and safety.

Operations and maintenance commitments include post-construction commitments to address staff training and instruction in the operation of the Project-specific turbines and accessory structures, public services training including high-angle rescue training, and providing equipment to the local fire district in the event of an emergency.

Decommissioning commitments address dismantling and removal of above-ground structures at the end of the Project's life or in the event that the Project is abandoned. The commitments include the restoration of habitat and land as well as disposal and recycling of materials.

B. Environmental Review

The EIS addresses impacts in both Garfield and Columbia Counties to avoid piecemealing of environmental review. One thousand turbine sites on approximately 124,000 acres in Garfield and Columbia Counties were comprehensively reviewed. At such time when PSE seeks to develop the portions of the LSRWP in Columbia County, that county will conduct its own permitting process and associated environmental review.¹ Columbia County does intend, however, to rely upon the Project's EIS to the maximum extent appropriate and permissible under Washington's administrative regulations. As a result, Columbia County staff was included in all key discussions and decisions regarding preparation of the Project's EIS, and public meetings regarding LSRWP were held in the City of Dayton, Columbia County as well as Pomeroy, Garfield County.

Environmental review for the LSRWP was triggered when Puget Sound Energy and Blue Sky Wind, LLC, a subsidiary of RES America Development, Inc, jointly submitted a Conditional Use Permit ("CUP") application to Garfield County on January 26, 2009. PSE and RES requested that Garfield County, as lead agency, issue a Determination of Significance ("DS") and prepare an EIS. Garfield County issued a DS/EIS Scoping Notice and a Revised DS/EIS Scoping Notice on February 18 and 26, 2009, respectively. EIS Scoping for the Project was conducted to obtain public and agency comments on the environmental aspects of this Project. The EIS Scoping comment period ended on April 3, 2009 – 36 days after the Revised DS/EIS Scoping Notice was issued. Fifty-nine comment letters were received by the County during this time period. In addition to a

¹ PSE is currently seeking a CUP in Columbia County which would be applicable to future Phases II and III. The open Public Record Hearing is scheduled for April 29, 2010. A decision is anticipated by mid-June.

period for submittal of written comments, informational public open house meetings were held on March 4 and 5, 2009, in Pomeroy and Dayton, Washington, respectively.

The 59 comment submissions address both CUP application issues and SEPA issues related to the Project. Such issues include:

- 1) Socioeconomic concerns related to taxes and property values;
- 2) Visual resource concerns related to visual impacts, the need for visual simulation to measure such impacts, and property-specific visual impact comments;
- 3) Noise concerns related to noise intrusion and the need for noise studies;
- 4) Concerns related to increased Project-specific traffic;
- 5) Land use issues related to continued recreational access in the Project Area, farmland and agricultural production impacts, and hunting restrictions;
- 6) Vegetation and habitat concerns;
- 7) Wildlife concerns related to population impacts and avian/bat mortalities;
- 8) Health and safety hazards involving shadow flicker, and threats to aerial sprayers;
- 9) Impacts on public services/emergency services; and
- 10) Comments providing support for the Project.

In addition to the comments received during the EIS Scoping period, Garfield County received two additional comment submissions: (1) a letter from Gary Houser, which was received by the County on April 13, 2009, after the scoping comment period deadline ended; and (2) at the request of Garfield County and the Washington Department of Archaeology and Historic Preservation, a letter from the Pomeroy Historic Preservation Commission dated September 28, 2009.

Following the review of the comments received, Garfield County issued three letters dated April 23, May 13, and May 18 to the EIS contractor, Ecology and Environment, Inc., that summarized the significant EIS scoping issues. Public scoping identified the following significant areas of interest to be considered in the Draft Environmental Impact Statement ("DEIS"): impacts to land uses in the area; socioeconomic impacts to the community and the public services afforded the area's citizens; avian and wildlife impacts; visual impacts

and noise impacts. The DEIS considered the following significant issues to be assessed through environmental and permit review: whether the Project would have significant adverse impacts to wildlife populations and hunting uses; whether there would be continued viability of agricultural activities; the level of demands placed on public services; calculation and timing of new revenues to taxing districts and the private sector; whether the Project could be sited to meet Washington's adopted noise level standards; and how the Project would affect the viewscape in the Project vicinity. In addition to those issues, all other statutory elements of the built and natural environment were considered in the Project's DEIS.

On August 17, 2009, the DEIS was issued with public notice of availability and the comment period appearing in the East Washingtonian and the Dayton Chronicle. Notice of its availability was also mailed to all adjacent property owners within 500 feet of the Project boundary and those who submitted scoping comments and requested notice. Hard copies of the DEIS were sent to all agencies with jurisdiction and the Confederated Tribes of the Umatilla Indian Reservation and the Nez Perce Tribe. Duly noticed public open houses were held on September 9 and September 10, 2009, in Pomeroy and Dayton, Washington respectively. County officials, applicant representatives, and key EIS consultants and section authors were present and available to respond to public questions. DEIS comment sheets were provided to attendees. A copy of the DEIS, including public notices and comment sheets, were also made available on the Garfield County website.

The LSRWP's DEIS evaluated the following elements of the environment: geology, soils, water resources, wetlands, aquatic habitat, fish species, and wildlife, bird and bat resources, vegetation, visual resources, noise, climate and air quality, public services and utilities, traffic and transportation, land use and recreation, socioeconomics, health and safety, and cultural resources. The DEIS concludes that as designed and mitigated the LSRWP will have "nominal effects" on water, wetland and fisheries resources, soils, geology, vegetation, climate and air quality, public services, health and safety, land use patterns, and cultural resources. The LSRWP will only permanently disturb 343 acres of the total project area within Garfield County – the remaining actively farmed acreage will remain under cultivation during LSRWP operations. The LSRWP's facilities will be sited and operated to meet an even higher noise standard than the applicable Washington

State noise standards – the LSRWP will not generate more than 50 dBA at existing non-participating residential receptors unless a noise easement is obtained – and, as such, noise impacts from the LSRWP will not be significant. PSE has committed to implement a hunting program to allow permissive hunting to continue to the extent it has been traditionally allowed on private property. The LSRWP will cause avian and bat mortality, although the DEIS authors conclude that in the context of what is known about these affected populations, the mortalities will not be significant on total populations of the species. Last, the LSRWP will generate revenues to taxing districts over the life of the LSRWP and not cause significant demands on the delivery of public services.

The DEIS does conclude, however, that the LSRWP will cause significant adverse impacts on visual resources; even with the mitigation measures proposed, some visual impacts cannot be eliminated or mitigated to levels that are less than significant. Numerous turbines will be visible from various locations throughout Garfield County and the region at large. Except for the impacts to visual resources, the DEIS finds that implementation of the proposed mitigation measures will avoid and/or prevent significant impacts associated with the LSRWP.

The DEIS comment period closed on September 16, 2009. By the end of the DEIS comment period, Garfield County had received a total of 23 comment submissions, copies of which are included within the Final EIS (“FEIS”). In accordance with WAC 197-11-560, Garfield County, in collaboration with Columbia County and the EIS consultant, prepared a FEIS that was issued on October 7, 2009. A Notice of FEIS Availability was published in the East Washingtonian and the Dayton Chronicle and mailed to all adjacent property owners within 500 feet of the LSRWP boundary and those who submitted scoping comments and requested notice. Hard copies of the FEIS were sent to all agencies with jurisdiction and the Confederated Tribes of the Umatilla Indian Reservation and the Nez Perce Tribe. Rather than repeating the extensive analyses presented in the DEIS, the FEIS presents: (1) updated and revised information to complete the environmental analyses presented in the DEIS; and (2) copies of written DEIS comments submitted to Garfield County as well as responses to those comments.

During the FEIS comment period, Garfield County received comments from Tribes, agencies, organizations, and individuals. In response to those comments and to provide

updated information on the LSRWP's environmental review process, the FEIS provides updates and text revisions to the analysis of the environmental impacts presented for sixteen elements of the environment. Chapter 2 of the FEIS includes:

- 1) A Zone of Visual Influence Map and discussion related thereto;
- 2) Low frequency noise, the dBC-weight scale, ambient noise, impacts related to low frequency noise, and the Washington noise standards;
- 3) Hospital district mutual aid agreements;
- 4) Revised cultural resource mitigation measures;
- 5) Western EcoSystems Technology, Inc. ("WEST")'s Final Wildlife Baseline Studies for the Project;
- 6) SWCA Environmental Consultant's ("SWCA") Final Rare Plant and Habitat Survey Report; and
- 7) SWCA's technical memorandum regarding cultural resource survey methodology.

Nevertheless, the FEIS does not change any of the conclusions reached in the DEIS: the LSRWP as mitigated will have significant adverse impacts on visual resources but only nominal impacts on the other fifteen elements of the environment.

The FEIS, combined with the DEIS, constitutes the entire "Environmental Impact Statement" for the LSRWP. On October 21, 2009, Garfield County received an FEIS adequacy appeal from Richard and Vicki Ducharme, alleging that the FEIS failed to adequately assess certain of the LSRWP's probable significant adverse impacts to the environment. This appeal was withdrawn on November 4, 2009. Thus the Environmental Impact Statement became final on its date of issuance, October 7, 2009.

Exhibit H-1

Phase I Construction Permits

Table 1 (Part 1 of 4). Garfield County Construction Permits

UPDATED: 04/21/2010

Action	Commitment		Trigger / Duration	Responsibility		Agency	Start Date	Plan Complete?	Submittal Date (Target)	Approval Date (Target)	Notes
	Reference to Action	Standards / Protocols		PSE	Firm/Contact						
PLANS/PERMITS/APPROVALS REQUIRED PRIOR TO CONSTRUCTION											
A. Prepare Transportation Route Plan	CUP 017000 Section VI-1 page 52	WSDOT Garfield County GCC 1.05.000(9)(22)	Submit to County prior to commencement of construction	Brian Doughty	Shimmins / RES	Garfield Co. WSDOT	Feb-10	Yes	3/11/2010	3/31/2010	Approved by Garfield County on 3/31/10
B. Prepare Site Access Plan	CUP 017000 Section VI-1 page 52 FEIS Table FEIS-1 p. 13	Garfield County GCC 1.05.000(9)(23)	Submit to County for review and approval prior to commencement of construction	Brian Doughty	RES Chris Fox BMCDC	Garfield Co.	Feb-10	Yes	Enabled 4/1/10	4/1/2010	Approved by Garfield County on 4/1/10
C. Develop Road Use Plans	CUP 017000 Section VI-1 page 52	Garfield County GCC 1.05.000(9)(17)	Submit to County for review and approval prior to commencement of construction	Brian Doughty	RES BMCDC	Garfield Co.	Feb-10	Yes	3/11/2010	3/31/2010	Approved by Garfield County on 3/31/10
D. Prepare SWPPP and obtain NPDES Construction General Permit and State Stormwater Construction General Permit	DEIS 2.2.2.1 FEIS Table FEIS-1 CUP 017000 Section VI-4 page 33	Ecology, County CACs	Ground disturbance > 1 acre Submit SWPPP to Ecology prior to construction for approval and permit. Submit NOI at least 30 days prior to construction.	Jim Sammel	DEA Ron Bockman	Ecology (Garfield Co.)	1/29/2010	Yes	3/29/2010	4/5/2010	NPDES issued by Dept of Ecology on March 26 and SWPPP approved by Garfield County on 4/5/10
E. Develop Fugitive Dust Control Plan	FEIS Table FEIS-1 p. 11 CUP 017000 Section VI-10 page 22	GCC 1.05.000(9)(17)	Submit Plan to County for review and approval prior to construction.	Brian Doughty	RES - Chris Fox	Garfield Co.	Feb-10	Yes	3/11/2010	3/25/2010	Approved by Garfield County on 3/25/10
F. Prepare Erosion and Sediment Control Plan	FEIS Table FEIS-1 p. 6 CUP 017000 Section VI-4 page 33	GCC 1.05.000(9)(17)	Submit Plan to County and Ecology prior to construction.	Jan Sammel	DEA - Ron Bockman	Ecology Garfield Co.	29-Jan	Yes	Enabled 4/5/2010	4/6/2010	Initial plans for BPA CF Access Road were approved by Garfield County on 4/6/10
G. Prepare Spill Prevention, Control and Countermeasures Plan	FEIS Table FEIS-1 p. 15 CUP 017000 Section VI-7 page 32	GCC 1.05.000(9)(11)	Submit Plan to County prior to construction.	Brian Doughty	RES Chris Fox	Garfield Co.	Feb-10	Yes	4/5/2010	4/6/2010	Sent to Garfield County for review on 4/5/10
H. Prepare Weed Management Plan in consultation with Garfield Co. Weed Board and WDFW	FEIS Table FEIS-1 p. 9 CUP 017000 Section VI-6 page 32	GCC 1.05.000(9)(26), (31)	Submit Plan to County for review and approval prior to construction.	Aime Walsh	PSE	Garfield Co (Weed Board)	Jan-10	Yes	3/3/2010	4/1/2010	Approved by Garfield County on 4/1/10
I. Develop and maintain Health and Safety Plan	FEIS Table FEIS-1 p. 14 CUP 017000 Section VI-7 page 32	Garfield County GCC 1.05.000(9)(48)	Submit to County prior to commencement of construction.	Brian Doughty	RES Chris Fox	Garfield Co.	Feb-10	Yes	3/11/2010	3/25/2010	Combined with Emergency Response Plan and approved by Garfield County on 3/25/10
J. Develop Emergency Response Plan	FEIS Table FEIS-1 p. 11, 12, 14 CUP 017000 Section VI-10 page 34	Garfield County GCC 1.05.000(9)(49)	Emergency Action and Fire Prevention - Submit for review and approval prior to construction. Operation Safety Program - Submit prior to commencement of operations.	Brian Doughty	RES Chris Fox	Garfield Co.	Feb-10	Yes	3/11/2010	3/25/2010	Approved by Garfield County on 3/25/10
K. Prepare Cultural Resources Mitigation and Archaeological Discovery Plan	FEIS Table FEIS-1 p. 18 CUP 017000 Section VI-11 page 34	GCC 1.05.000(9)(A1) DAHP, Tribes	Submit copy to County prior to any earthmoving activities.	Larry Tomberg	PSE	DAHP, Tribes (for P.C.)	3/10/2010	Yes	3/10/2010	4/1/2010	Approved by DAHP on 4/1/10. Submitted to Garfield County on 4/7/10.

Table 1 (Part 2 of 4). Garfield County Construction Permits

Lower Snake River Wind Energy Project										
PSE Commitments from EIS Process/Garfield County CUP Criteria and Conditions of Approval										
UPDATED: 04/21/2010										
Action	Reference to Action	Standards / Protocols	Trigger / Duration	Responsibility		Agency	Start Date	Plan Complete?	Approval Date (Target)	Notes
				PSE	Firm/Contact					
PLANS/PERMITS/APPROVALS REQUIRED PRIOR TO CONSTRUCTION										
L. Prepare Site Security Plan	FEIS Table FES-1 p. 15 CUP 012009 Section 1-11 page 55	Garfield County GCC 1.05.0801(B)(56)	Submit to County prior to commencement of construction.	Brian Doughty	RES Chris Fox	Garfield Co	Jan-10	Yes	3/22/2010	Approved by Garfield County on 3/22/10
M. Decommissioning Plan	DEIS 1.5.7 p. 1-53 CUP 012009 Section 1-13 page 55	GCC 1.05.0801(B)(57) (57-59)	Plan needs to be submitted to County prior to commercial operations.	TBA	PSE	Garfield Co	June-10		Sept-10	
N. Haul Road Agreement (also listed as Comprehensive Project Condition)	FEIS Table FES-1 p. 13 CUP 012009 Section 1-13 page 55	Columbia County, Garfield County	Hauling operations on Garfield County roads.	Brian Doughty	RES Chris Fox	Garfield Co Public Works Dept	3/15/2010		4/17/2010	Garfield County sent PSE a draft for review. Haul Road Agreement requires final inspection of county roads by contractor, County, and PSE. Inspection has been scheduled for 4/12/10
O. Franchise Agreements (also listed as Comprehensive Project Condition)	FEIS Table FES-1 p. 13 CUP 012009 Section 1-13 page 55	Columbia County, Garfield County	Hauling operations/roadway unavailability. Enter into agreement(s) and meet bonding requirements prior to construction.	Brian Doughty	PSE	Garfield and Columbia Co Public Works Depts	5/15/2010		4/15/2010	Assume this is just for franchise primary for UG power collection system. Process when electrical design is complete & determine where franchise is required
P. Right-of-Way Access/Approach Permits (also listed as Comprehensive Project Condition)	FEIS 3-1 CUP 012009 Section 1-5 page 56, Section 1-12 page 56 and Section 1-13 page 56	GCC 1.05.0801(B)(19) GCC 1.05.0801(B)(20)	For new permanent roads and temporary roads requiring approval from the County of Columbia County. Part of the Road Use Permit process. Obtain permits prior to construction.	Brian Doughty	BMCDO	Garfield Co	3/1/2010	N/A	See below	Individual access permits to be determined from item 8-16 access plan. Process permits with county as design is completed. Access Permits to be done.
P1. Access Point #1			Hager 10 & Central Ferry Access	Jim Sammet	BMCU			Yes	4/8/2010	New Hager Road to Central Ferry. Permit application was submitted to Garfield County on 4/8/10
Q. Permits for On-site Seeps Systems (also listed as Project Construction Condition)	CUP 012009 Section 1-4 page 56	Garfield County and Columbia County Health Department	Obtain required permits prior to construction.	Brian Doughty	ASE Hen - DMM	Garfield Co, Columbia Co	Sept-10		Dec-10	Need permit prior to construction in 2011
R. Surface Mining Reclamation Permit	FEIS Table 3-1 CUP 012009 Section 1-7 page 57 and Section 1-13 page 57	GCC 1.05.0801(B)	For quarries that (1) result in more than 3 acres of mine-related disturbance, or (2) has a high-wall that is both higher and steeper than 45 degrees.	Brian Doughty	RES Chris Fox	WA DNR	End 2011		2012	Need approval prior to reclamation of any quarries
S. Final Corridor Site Plan (also listed as a Design/Micrositing Condition)	CUP 012009 Section 1-2 page 57, Section 1-11 page 58 and Section 1-13 page 58	GCC 1.05.0801(B)	Submit to County upon completion of micrositing, and after modifications or expansion of project boundaries	Jim Sammet	BMCDO	Zoning Official and Public Works Dept.	Feb-10	Yes	4/5/2010	Phase 1 Final Site Layout Plan - Rev F Include Quarry sites, Construction Office complex, Batch plant locations. Draft submitted to Garfield County on 4/5. A few changes and additions need to be made for the final version. Awaiting comments from Garfield County.
T. Temporary Air Quality Permits (also listed as a Construction Condition)	FEIS Table FES-1 p. 11 CUP 012009 Section 1-13 page 57		For concrete batch plants	Brian Doughty	RES	Ecology	Feb-10		May-10	Batch plant operator permit - coordinate site specific: sepa requirements if any (With Ecology)
U. Critical Areas Review/Determination	FEIS Table FES-1 p. 8	Co. CADA	Working in or near critical areas. Review completed prior to construction	Larry Tomberg	PSE Inns - HJR	Garfield Co, Public Works	Feb-10		4/8/2010	Prepared for Central Ferry access work: will want to be updated for the rest of the project. (not expected to be required)
V. CWA 404 Permit	FEIS Table 3-1	Clean Water Act	Ditching/excavation impacts to jurisdictional water of other waters of the U.S.	Larry Tomberg	PSE	USACE (Walla Walla District)	May-10		June-10	PSE to review CAO & Jurisdictional wetlands/waters & determine if permit is required. Provide notice to Garfield Co, whether or not permit is required

Table 1 (Part 3 of 4). Garfield County Construction Permits

Lower Snake River Wind Energy Project
PSE Commitments from EIS Process/Garfield County CUP Criteria and Conditions of Approval

UPDATED: 04/21/2010

Action	Reference to Action	Commitment	Standards / Protocols	Trigger / Duration	Responsibility		Start Date	Plan Complete?	Approval Date (Target)	Notes
					PSE	Firm/Contact				
PLANS/PERMITS/APPROVALS REQUIRED PRIOR TO CONSTRUCTION										
W. CWA 401 WQ Certification	FEBIS Table 3-1	Clean Water Act		Discharge/excavation impacts to jurisdictional water of other waters of the U.S.	Larry Tomberg	PSE	Ecology	N/A	N/A	(not expected to be required) PSE to review CAO & Jurisdictional wetlands/waters & determine if permit is required. Provide notice to Garfield Co. whether or not permit is required.
X. Sand and Gravel Permits - Portable Facilities (NPDES and State Waste Discharge General Permit)	FEBIS Table 3-1			Water discharges, including industrial storm water and process water, associated with portable concrete batch plants, asphalt plants, and rock crushers.	Brian Dougherty	RES Chris Fox	Ecology	Feb-10	May-10	RES to submit crushing plant operator's NPDES permit (over annual).
Y. Hydraulic Project Permit.	FEBIS Table 3-1	RCWXXX		Activities that use, divert, obstruct, or change the natural flow or bed of any water in the state. Construction of water wells, measuring wells, geotechnical borings. MOI to construct well must be submitted at least 72 hrs prior to well construction.	Larry Tomberg	PSE - DEA (Ron Bodulinski)	WDFW	Feb-10	Feb-10/01/10	HDR to complete draft application.
Z. Well Construction and Operator's License.	FEBIS Table 3-1			Construction activities that may disrupt or destroy cultural or historic resources. Consultation with DAHP and affected tribes must be undertaken before construction.	Larry Tomberg	PSE (not expected to be required)	Ecology	N/A	N/A	Not expected to be required. O&M building will be on City of Pomeroy water.
AA. State Historic Preservation Approvals/ Section 106 of National Historic Preservation Act consultation.	FEBIS Table 3-1			Excavating, altering, unfixing, or removing archaeological objects or resources or Native Indian graves, cairns, or glyptic records.	Larry Tomberg	SWCA	DAHP, Tribes	Jan-10	Feb-10/2010	HDR drafting response to comments. Additional studies/information required for those sites that may be impacted by construction.
BB. Archaeological Excavation Permit.	FEBIS Table 3-1			Projects requiring federal permit/approval, receiving federal funds, or with potential to adversely affect federally listed species.	Larry Tomberg	SWCA	DAHP, Tribes	N/A	N/A	(not expected to be required - would only be required during inadvertent discovery)
CC. Endangered Species Act - Section 7 consultation.	FEBIS Table 3-1			Excising disturbances taller than 200 feet.	Anna Walsh	PSE	USFWS and/or NMFS	N/A	N/A	(not expected to be required)
DD. FAA Form 7460 Notice of Proposed Construction or Alteration.	FEBIS Table 3-1			Operation of temporary onsite portable rock crusher.	Brian Dougherty	PSE / Siemens	FAA	Feb-10	Feb-10	See below.
EE. General Order of Approval for Concrete Batch Plants.	FEBIS Table 3-1			Operation of temporary onsite portable rock crusher.	Brian Dougherty	RES Chris Fox	Ecology, Eastern Regional Office	Feb-10	Apr-10	Batch plant operator permit - coordinates site specific requirements if any with Ecology
FF. General Order of Approval for Portable Rock Crushers.	FEBIS Table 3-1			Operation of temporary onsite portable rock crusher.	Brian Dougherty	RES Chris Fox	Ecology	Feb-10	Apr-10	Crushing plant operator permit - coordinate site specific requirements if any with Ecology
GG. Highway Access Permits.	FEBIS Table 3-1			Any private access to US 12 or SR 127	Jill Samson	BMCO	WSDOT	Feb-10	See below.	Process permits with WSDOT as design is completed.

* Indicates submittal for Central Ferry Access Road. Additional updates/submittals may be required.

Table 1 (Part 4 of 4). Garfield County Construction Permits

Lower Snake River Wind Energy Project
PSE Commitments from EIS Process/Garfield County CUP Criteria and Conditions of Approval

UPDATED: 04/21/2010

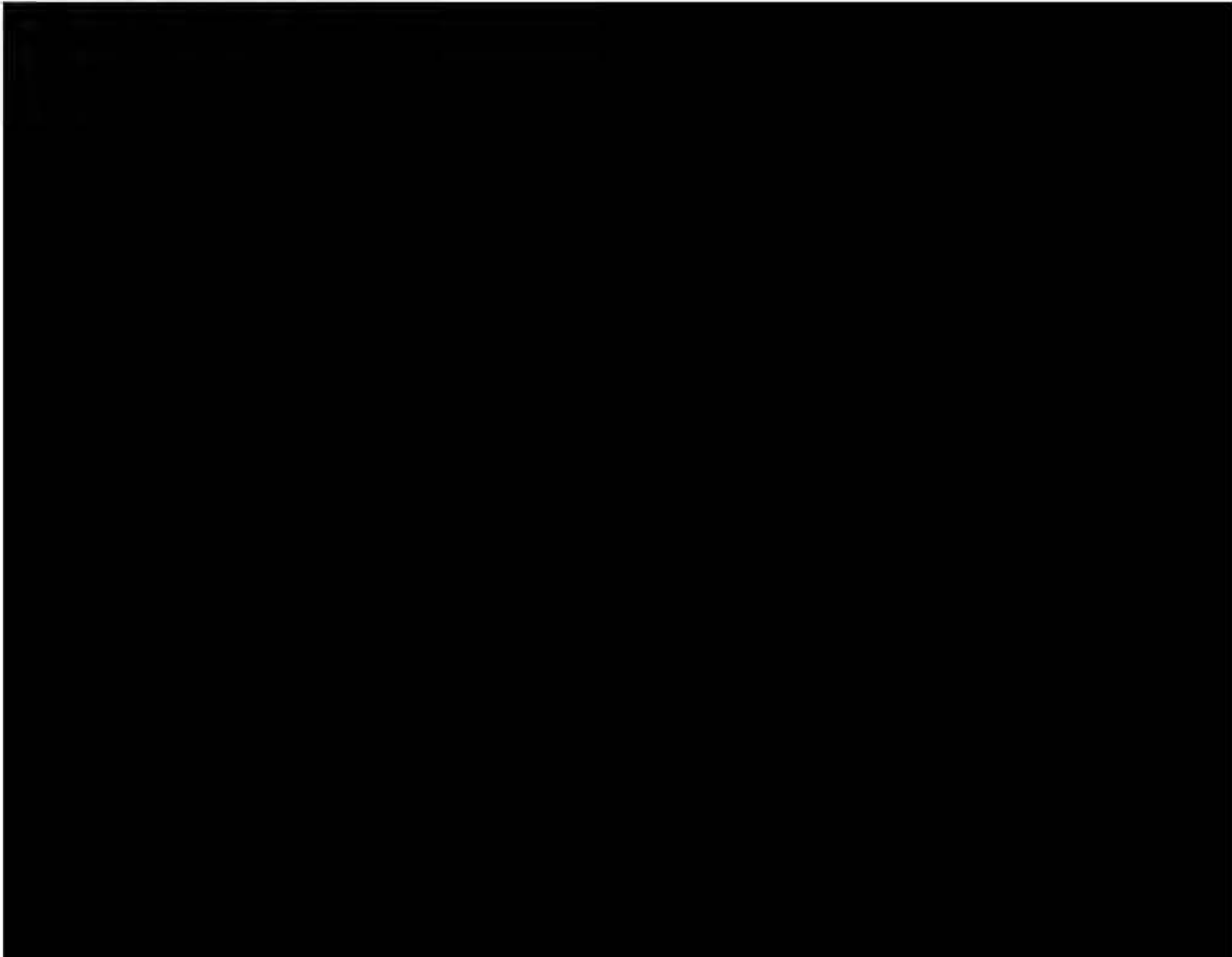
Action	Reference to Action	Commitment	Standards / Protocols	Trigger / Duration	Responsibility		Agency	Start Date	Plan Complete?	Approval Date (Target)	Notes	
					PSE	Firm/Contact						
GG1. Access Point #1					Jim Sammet	BMCD	WSDOT		Yes	3/23/2010	4/15/2010	Interconnection plan for approval-New Hagen Rd-Hwy 127 access permits for strings 2 & 3 / Hwy 127. WSDOT to issue general permit for new Hagan rd intersection to begin construction on CP access.
GG2. Access Point #2					Jim Sammet	BMCD	WSDOT					Hwy 127 is approximately mile 2.4. Site roads for 35 trailers and Phalen Gulch substation will be accessed via this point. This access will only be on the west side of Hwy 127.
GG3. Access Point #3					Jim Sammet	BMCD	WSDOT					Hwy 127 at approximately mile 1.5. Site roads for 22 trailers will be accessed via this point.
GG4. Hwy 12-Owens Road					Jim Sammet	BMCD	WSDOT					General permit for access to Owens Road from Hwy 12.
HH. Building Permit.	FEIS Table 3-1			Development and facility construction.	Brian Doughty	RES / Chris Fox	Garfield and Columbia Co. Public Works Depts.	Jun-10		Open June 2010	On going	RES to submit building permits through PSE in groups (such as Turbine Strings) prior to beginning construction. Fees per Garfield County Coal Reimbursement Agreement.
II. Conditional Use Permits.	FEIS Table 3-1			Construction of a wind energy facility in agriculturally zoned areas.	Larry Tomberg	PSE	Garfield and Columbia Co. Public Works Depts.	2009	Yes	11/5/2009	11/25/2009	COMPLETED
JI. ROW Use Permit	FEIS Table 3-1			Placement of utilities within Co. ROW.	Brian Doughty	PSE	Garfield Co. Public Works Dept.	3/19/2010		4/15/2010	5/10/2010	Allows work to be performed on County ROW. Do one permit for entire Phase 1. (Update County w plans as prepared)
KK. New Hagen Road Design	Nil		G.C. Road Standards	Addition of first portion of CP Access from HWY 127 to Hagen Rd as the new ROW and access for Hagen Rd.	Brian Doughty	PSE / BMCD	Garfield Co. Public Works Dept.	3/9/2010	Yes	Emailed 4/5/2010	4/8/2010	Design approved by Garfield County on 4/8/10. Prior to Garfield County accepting the Hagen road revision into the County roadway system, the County will need to inspect the finished roadway to verify it meets the standards approved.
LL. Owens Rd & Jackson Rd Improvements			G.C. Road Standards	Improvements to	Brian Doughty	PSE/BMCD	Garfield Co. Public Works Dept.	Mar-10		Apr-10	May-10	County review of road plans

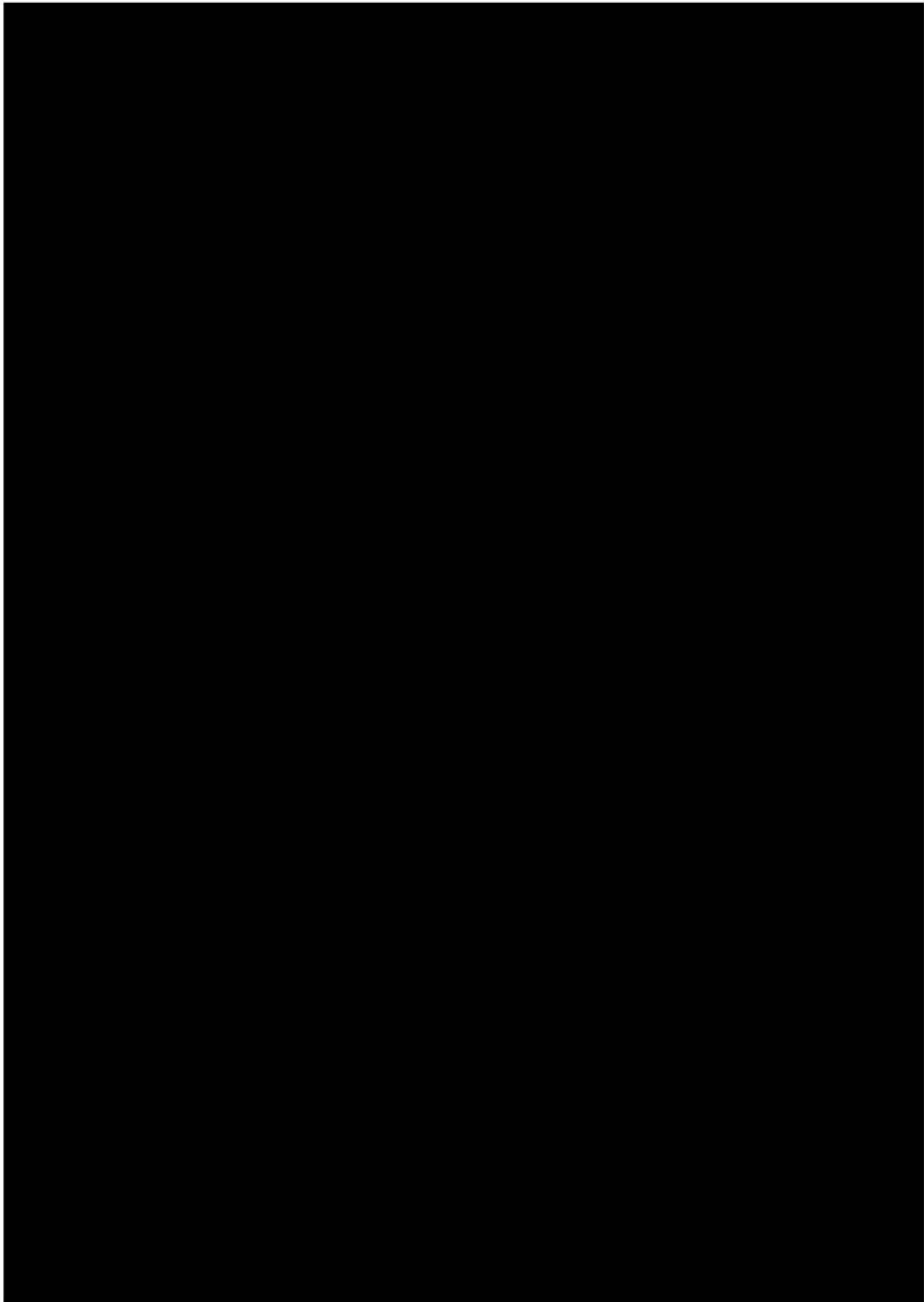
* Indicates submittal for Central Ferry/Access Road. Additional updates/submittals may be required.

Exhibit I
Real Estate

Exhibit I Real Estate

The Lower Snake River Wind Project, Phase I ("Phase I" or "Project") consists of 28 Wind Energy Ground Leases and related easements which burden approximately 39,600 acres in western Garfield County, WA (Attachment 1). The leased lands are almost entirely utilized for agriculture including dry land wheat farming, livestock grazing and conservation reserve program grasslands. Twenty-seven of the leases have been signed with 23 private citizens or corporations; four of the 27 landowners have two leases each within the Project. One lease within the Project, which covers approximately 300 acres, is owned by the Washington State Department of Natural Resources. Each wind lease has a term of 35 years with options, upon the occurrence of certain events, to extend the lease to a total of 50 years from the initial signing date.

Leasing StructureREDACTED
VERSION



REDACTED
VERSION

Real Estate Maps

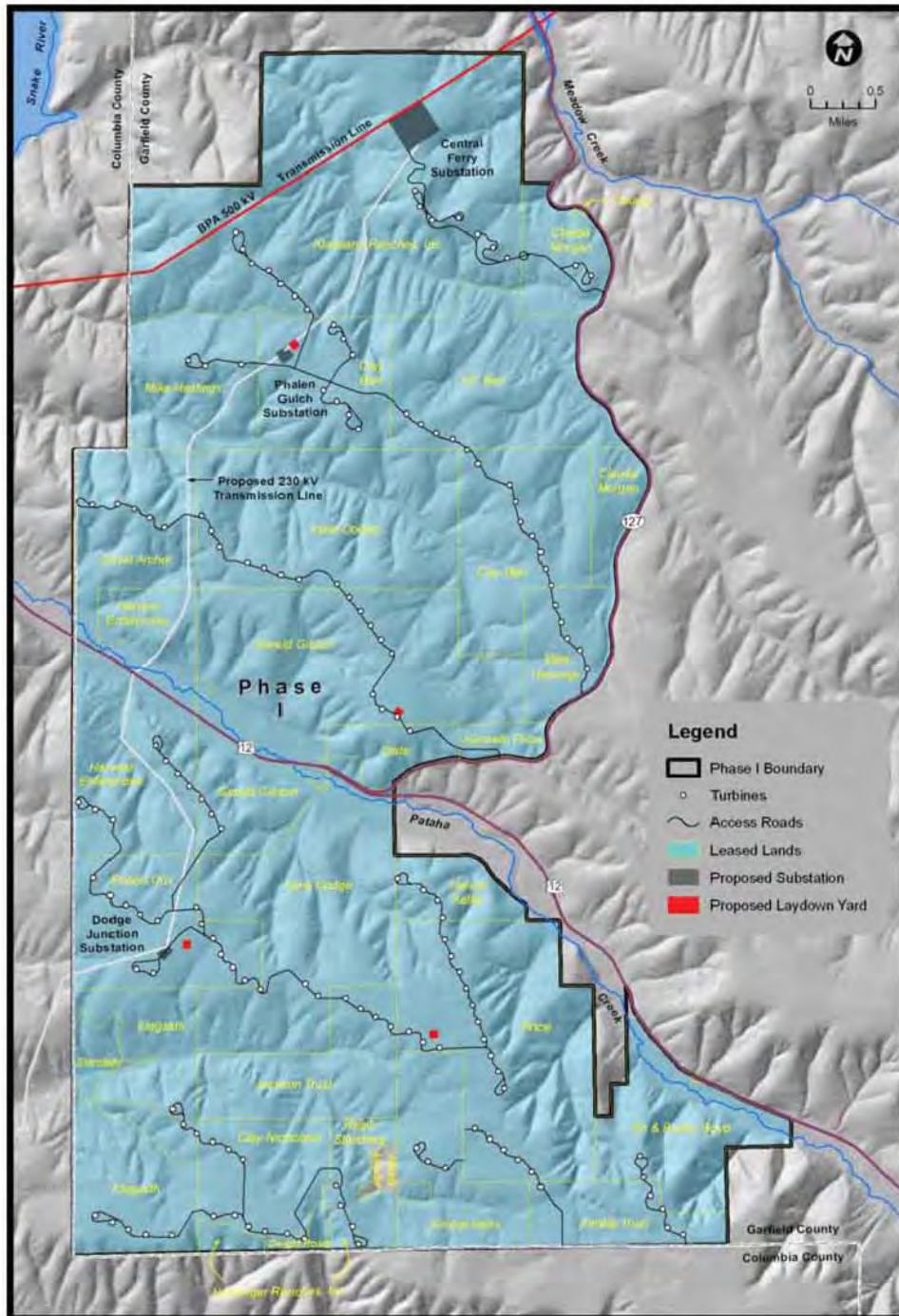


Figure 1. Map of Phase I identifying land lease parcels.

Exhibit J

Community and Communications

Exhibit J Community and Communications

The Lower Snake River Wind Project, Phase I ("LSRWP") enjoys considerable local support from government leaders, the business community and the majority of residents. These supporters view wind energy as a vital and unprecedented opportunity to enhance the local economy through the creation of jobs, addition of new tax revenues and the diversification and stimulation of local businesses and services.

However, these supporters are closely following the current economic downturn and seek continued reassurance that PSE, as owner, intends to construct the LSRWP in multiple phases.

Supporting groups include:

- a) Citizens for Economic Diversity (CFED), Columbia County
- b) Southeast Washington Economic Development Association, Columbia and Garfield Counties
- c) Pomeroy Chamber of Commerce, Garfield County
- d) Dayton Chamber of Commerce, Columbia County

Opposition to wind energy appears to come mostly from a limited group of residents, primarily in Columbia County, who view the wind turbines as visually intrusive or as a source of unwanted noise. However, a settlement has been reached with the leading opponents of the LSRWP, who have agreed to withdraw their objections in consideration for changes in proposed turbine siting near their property.

The only opposing group has been the Friends of Scenic Columbia County. This group was actively engaged during the early stages of LSRWP when Columbia County was engaged in developing its comprehensive plan and its conditional use permit process. It was been significantly less visible since the process was finalized.

A. Communications and Community Outreach Strategies

The communications and community outreach program is centered on strategies designed to communicate the economic benefits of the LSRWP to the local communities in which the phases will be built, and to the broader state and regional audience of stakeholders including PSE customers, regulators, environmental groups and other organizations interested in the development of renewable energy.

These strategies include:

- a) Communicating PSE's commitment to the prudent completion of the Lower Snake River project.
- b) Communicating PSE's capabilities in developing, designing and constructing the Lower Snake River project.
- c) Communicating the economic opportunity for Columbia & Garfield counties.
- d) Gaining the support of local community leaders and organizations in their grassroots movement in favor of wind energy and the LSRWP.

Key messages delivered through these strategies include:

- a) The LSRWP is an unprecedented opportunity that will bring tax benefits, jobs and new choices for the area's young people and families.
- b) PSE's Hopkins Ridge project demonstrates that wind power is a proven, long-term source of cash-flow and income that will allow agricultural landowners to gain the full benefit of their property and keep family farms thriving.
- c) The LSRWP will help Washington meet its renewable energy standards and future energy needs, and will increase our nation's energy independence.
- d) PSE is committed to public participation and involvement in following local, county and state processes.

B. Media Relations

Positive news coverage of the LSRWP has been gained in local community publications serving the project area, including the *Blue Mountain News*, *Dayton Chronicle*, *Pomeroy East Washingtonian*, *Walla Walla Union-Bulletin*, *Lewiston Tribune* and *KLEW-TV*.

C. Speaking Engagements

Community engagement at area business events include speakers presenting to civic organizations including Rotary, Kiwanis, Chamber of Commerce and agricultural forums, as well as coordination with the Southeast Washington Economic Development Association to make a series of presentations showing the positive findings of an independent study on the economic benefits of wind power.

D. Community Involvement

PSE has sponsored numerous community events, including the Garfield and Columbia county fairs, local fundraising and charity projects, business group seasonal promotions, veterans' recognition and other initiatives benefitting Dayton- and Pomeroy-area residents. Of note are contributions to enable both the Garfield and Columbia county fire districts to purchase new equipment, and a contribution to local historical and cultural preservation efforts. In addition, the Pomeroy and Dayton offices each hosted "Harvest Celebrations" in October 2009 to bolster PSE's ties to community members, and make facilities at the offices open to community meetings and other events as needed.

Copies of recent newsletters and factsheets are attached.



**Lower Snake River
Wind Power News**
A newsletter about the Lower Snake River Wind Energy Project
307 E. Main Street, Dayton, WA



Learn More

Puget Sound Energy is the developer and owner of the Lower Snake River Wind Energy Project, and also owns the Hopkins Ridge Wind Facility in Columbia County and the Wild Horse Wind and Solar Facility in Kittitas County.

For more information about the Lower Snake River Wind Energy Project, please visit PSE.com, local community offices in Dayton and Pomeroy. On the web, please see PSE.com and SnakeRiverWind.com.

The Lower Snake River Wind Power News is published six times a year by PSE as a source of project and community news.

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Our Mission
The Lower Snake River Wind Power News is published by Puget Sound Energy. It is a local and targeted newsletter that is a source of project and community news during the development and construction of the Lower Snake River Wind Energy Project.

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PSE - PUGET SOUND ENERGY
The Energy We Do About 20 Miles

**Lower Snake River
Wind Power News**
A newsletter about the Lower Snake River Wind Energy Project

Dayton and Pomeroy Celebrate the Harvest



With harvest season over – and winter's chill not far away – local residents and Puget Sound Energy employees took time to relax and celebrate another successful harvest of both wheat and wind.

PSE's Anne Walsh and Joan Hudson hosted an open house lunch at the company's Dayton office on Oct. 18, while Jay Takemura and Jamie Carothers hosted an Oct. 20 gathering at the company's office in Pomeroy, which opened in July as part of the Lower Snake River Wind Energy Project.

The events featured hats, mugs and even a cake with a "wheat turbine design" inspired by the creativity of the Hopkins Ridge Wind Facility team.

"The wheat turbine is a symbol of how the two harvests – grain and wind power – go so well together," said Walsh, manager of PSE's Dayton office, which opened in 2005 to support Hopkins Ridge. "Few regions anywhere are better for wheat and wind than Columbia and Garfield counties."

Walsh notes that the existing Hopkins Ridge wind facility, the wind turbines and support structures occupy less than 1 percent of the total land area, leaving the remaining acreage within the wind projects available for farming.

A limited number of free hats and mugs are still available. Please call 509-382-2043 (Dayton) or 509-843-5062 (Pomeroy) for more information.

November/December 2009
November 8, 2009
Interview
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PSE - PUGET SOUND ENERGY
The Energy We Do About 20 Miles

Garfield County Conditional Use Permit Public Hearing

Garfield County Fairgrounds, Pomeroy
Thursday, Nov. 5
9:30 a.m.

In Columbia County, an effort to mark the region's history reached a successful milestone in October, with the dedication of a sculpture honoring Sacajawea's journey with Lewis and Clark through southeast Washington. The sculpture, located in Dayton at North First and Commercial streets, honors the Native American woman's vital contributions to the epic trek. It was made possible by the Blue Mountain Heritage Society of Dayton, with support from local residents and businesses, including Puget Sound Energy.

Emergency services in Garfield County received a boost on Oct. 20, thanks to a contribution from PGE. The donation to Fire District #1 helps fund the recent purchase of a heavy-duty, four-wheel drive rescue vehicle that is now in service with Pomeroy-area fire crews.

Columbia County's history is commemorated by a sculpture of Sacajawea and Lewis and Clark expedition's travels through Southeast Washington.

Cultural Heritage, Local Services Benefit From Wind Power



One Year in Wind Power: Pomeroy's Jay Takemura Reflects

Jay Takemura joined Puget Sound Energy in September 2009 and now manages its Pomeroy office as part of the team developing the Lower Snake River Wind Energy Project. He shares his thoughts on his first year in wind power.

"Looking back on the news headlines from this past year makes me realize how fortunate I was to join PSE and be a part of something that is growing and thriving at a time when so much of our economy is struggling. There has been a lot to learn in moving to a new career, but in many ways wheat farming and wind power are a lot alike. You need to think long term, about practices and plans that will be good for next year and the year beyond, and not just for the next few months. Also, wind power is like grain farming in that we are utilizing a resource given to us by nature, and we need to take that responsibility seriously. I'm still a rookie, but I've enjoyed my first year in wind power and look forward to the years ahead. And yes, I still like to get out on the family farm, and can't see that ever changing."

Sportsmen Welcome at Columbia County Wind Facilities

Please see PSE.com for more information.



PSE's Jay Takemura (right) confers with the utility's Kurt Kuske about the Lower Snake River Wind Energy Project. Takemura is the Pomeroy office manager of the Washington Wind Center, a local business that has been a part of the project since its inception. Kuske is the local chairperson and board member of the Columbia County Grain Growers and past county president and state board member of the Washington Association of Wheat Growers.

Public Comments to be Taken at Garfield County Hearing

Residents of Garfield County and the surrounding region are invited to comment on the proposed Lower Snake River Wind Energy Project at an open-record public hearing to be held by Garfield County on Thursday, Nov. 5 at 9:30 a.m. at the Garfield County Fairgrounds in Pomeroy.

The hearing will be an opportunity for local residents to voice their opinion on the Conditional Use Permit (CUP) requested for the Garfield County portions of the planned wind project, with comments allowed both in person and in writing.

A second CUP application for the portions of the project planned for Columbia County, is expected to be filed before the end of 2009. Please contact Garfield County at 509-843-1301 or visit www.co.garfield.wa.us to learn more about the public hearing.

Happy Birthday, Hopkins Ridge



Columbia County's Hopkins Ridge Wind Facility marks its fourth year of operations, having entered into service in November 2006. Since that time, the Puget Sound Energy facility has generated more than 1.5 million megawatt-hours (MWh) of electricity and has expanded from the original 83 wind turbines to 87, with four new turbines added in August 2008.

In addition to PGE's Hopkins Ridge, Columbia County is also home to the Marengo I and II wind facilities owned by PacifiCorp Energy. An independent economic impact study recently found the wind facilities in the county employ 39 people directly, and indirectly support an additional 14 jobs in the community, generating annual income estimated to be nearly \$3.5 million.

2

November/December 2009 | Phone 509-382-2943 (Dayton) or 509-843-3082 (Pomeroy) | www.pse.com

3

LOWER SNAKE RIVER Wind Energy Project Fact Sheet



What is the Lower Snake River Wind Energy Project?

The Lower Snake River Wind Energy Project is a new renewable energy facility located in Washington state's Columbia and Garfield counties. The project builds on the success of PSE's Hopkins Ridge wind facility in Columbia County and the contribution it makes to the local economy and renewable energy.

The conditional use permit (CUP) filed in Garfield County anticipates approximately 800 MW of wind energy and approximately 444 wind turbines in Garfield County. Under the Washington State Environmental Policy Act (SEPA), the project's environmental impact statement will also consider additional wind energy resources of approximately 632 MW and approximately 351 wind turbines in Columbia County, where a CUP is expected to be filed later in 2009. Final installed wind turbine numbers and locations will be determined through the two counties' permitting processes and complete evaluation of the environmental impact and available wind resources. The project is designed to be built in phases, with construction on support infrastructure targeted to begin in 2010.



Wind and wheat go well together. More than 98 percent of the land at PSE's Hopkins Ridge Wind Facility in Columbia County remains available for agriculture.

How will the Lower Snake River Wind Energy Project benefit local communities?



Wind energy brings temporary and permanent jobs to the local community, as well as a new source of income for landowners.

Wind power brings construction and permanent jobs, increased tax revenue and a new source of income and business activity to local communities. In Columbia County, the existing wind facilities with a total of 204 turbines and a capacity of 367 MW accounted for an increase in direct employment by providing approximately 170 construction jobs and 39 permanent operations jobs. Local government services benefit from approximately \$1.3 million in additional annual tax revenue generated by the existing wind facilities and will benefit even more from the Lower Snake River Wind Energy Project.

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PSE.com

Is wind power compatible with agriculture?

Wind power is a new crop for the region to harvest that has little impact on existing agriculture and fits well with grain farming and other land uses. The existing Columbia County wind facilities were built so that more than 98 percent of the land remains available for farming. After construction, temporarily disturbed areas are returned to their previous condition for agriculture.



Wind facilities bring a new source of tax revenue to the region, while lowering the tax burden on individual homeowners. For example, PSE's Hopkins Ridge Wind Facility accounts for more than \$900,000 yearly in county property tax revenue. As a result taxes have been cut by more than \$300 each year for the owner of a \$250,000 home.

Why is PSE building new wind facilities in Southeast Washington?

PSE has a track record of successfully developing, constructing and operating wind facilities in Columbia County and across the Northwest; and will bring this experience to creating new facilities that will boost the local economy and add to the region's clean energy resources. In addition to the Hopkins Ridge Wind Facility in Columbia County, the utility owns and operates the 229 MW Wild Horse Wind and Solar Facility in Kittitas County. A 44 MW expansion at Wild Horse will add to its capacity later this year.

Where is the Lower Snake River Wind Energy Project?

The Lower Snake River Wind Energy Project is planned for Southeast Washington's Garfield and Columbia counties (county boundaries shaded on map). The area has a proven wind resource and has enjoyed the economic benefits of wind power since 2005, with 367 MW of wind power now in operation – enough to meet the needs of approximately 100,000 homes.



Washington state's Columbia County (west) and Garfield County (east).

About Puget Sound Energy

Washington state's oldest and largest energy utility, with a 6,000-square-mile service area stretching across 11 counties, Puget Sound Energy serves more than 1 million electric customers and nearly 750,000 natural gas customers. PSE, a subsidiary of Puget Energy, meets the energy needs of its growing customer base primarily in Western Washington through incremental, cost-effective energy conservation, procurement of sustainable energy resources, and far-sighted investment in the energy-delivery infrastructure. PSE employees are dedicated to providing great customer service to deliver energy that is safe, reliable, reasonably priced, and environmentally responsible. For more information, visit PSE.com.

Exhibit K

Rates and Accounting Issues

Exhibit K **Rates and Accounting Issues**

This exhibit addresses the following topics:

- A. Rate Recovery
- B. First-Year Rate Increase
- C. Treasury Grant Accounting
- D. BPA Prepaid Transmission
- E. Other Miscellaneous Accounting

A. Rate Recovery

PSE will seek rate recovery for the Lower Snake River Wind Energy Project, Phase I (the "Project" or "Phase I") through either a General Rate Case ("GRC") proceeding or a Power Cost Only Rate Case ("PCORC") proceeding with the Washington Utilities and Transportation Commission ("WUTC"). The anticipated commercial operation date ("COD") of the Project in April 2012 occurs at a time that straddles two possible rate filings. PSE anticipates filing a GRC in the third or fourth quarter of 2010. Cost recovery of the Project will occur in a subsequent GRC or PCORC rate proceeding filed in 2011. The ownership and operating costs of the new facility not collected in rates through the Power Cost Adjustment ("PCA") mechanism would be deferred, under RCW 80.80.060, in a manner similar to Mint Farm and the Wild Horse Expansion for the lesser time period of, a) the in-service date until the end of the rate proceeding that requests recovery or b) two years from the in-service date. For external financial reporting purposes, only incurred costs can be deferred, thus a full offsetting reserve on the equity component of ownership costs prior to the inclusion of the facility in customer electric rates will be recorded. Also per the WUTC's general tariff order issued April 2, 2010, no carrying costs on amounts deferred will be recorded or included in future customer electric rates.

The following tables lay out the possible rate recovery timing.

Table 1. Possible 2010 Activities.

Timing of 2010 GRC	Q3 or Q4 2010
LSR Wind Project	Rate recovery would not be requested
Rates Effective	Q2 or Q3 2011 (exclusive of LSR)
Rate Year	Begins 11 months from filing date

Table 2. Possible 2011 Activities.

Subsequent Rate Proceeding	GRC 2011 (approx. Q3 or Q4 2011)	PCORC 2011 (approx. Q3 or Q4 2011)
LSR Wind Project	Describe and request cost recovery	Describe and request cost recovery
Rates Effective	Q3 or Q4 2012 (11 month process)	Q2 or Q3 2012 (6 month process)
Rate Year	Aug. 2012 – Jul. 2013	Apr. 2012 – Mar. 2013
LSRWP Cost Deferral	~4 months Apr. – Aug	may have some deferral

The GRC or PCORC filing in 2011 may occur before all construction costs are known with certainty. If allowed and if necessary, cost estimates may be updated during the filing.

Under the authority of Washington RCW 80.80.060(6), PSE may defer the cost of the Project for later consideration by the WUTC.

(6) An electrical company may account for and defer for later consideration by the commission costs incurred in connection with a long-term financial commitment, including operating and maintenance costs, depreciation, taxes, and cost of invested capital. The deferral begins with the date on which the power plant begins commercial operation or the effective date of the power purchase agreement and continues for a period not to exceed twenty-four months; provided that if during such period the company files a general rate case or other proceeding for the recovery of such costs, deferral ends on the effective date of the final decision by the commission in such proceeding. Creation of such a deferral account does not by itself determine the actual costs of the long-term financial commitment, whether recovery of any or all of these costs is appropriate, or other issues to be decided by the commission in a general rate case or other proceeding for recovery of these costs. For the purpose of this subsection (6) only, the term "long-term financial commitment" also includes an electric company's ownership or power purchase agreement with a term of five or more years associated with an eligible renewable resource as defined in RCW [19.285.030](#).

The total amount of these costs depends upon both the COD and when rates go into effect. The deferral would be impacted by the total amount expended on the Project and offset by reductions in market purchases.

The GRC or PCORC would seek prudence determination for the Project as well as other potential resource acquisitions or contract restructurings.

B. First-Year Rate Increase

PSE estimates that regulatory cost recovery of the Lower Snake River Wind Project will result in a first-year rate increase of approximately \$80 million or about 4% of base rates. The revenue increase of \$80 million includes cost recovery for fixed and variable operation, maintenance and administrative costs as well as transmission expense, depreciation, allowed return on ratebase, allowed return on the pre-payment to BPA, and offset by the Treasury Grant normalization (see Exhibit S) and by an anticipated reduction in secondary purchase power.

C. Treasury Grant Accounting

Exhibit S describes in considerable detail the current renewable tax credit incentives available to owners of renewable energy projects, demonstrates that the Treasury Grant is most beneficial to PSE's customers, explains the accounting guidance on normalizing the Treasury Grant benefits in rates, and discusses PSE's methodology by which it will normalize the Treasury Grant. The following section is a brief note on the ten-year normalization of the Treasury Grant. For full detail on PSE's planned accounting treatment of normalization, please see Exhibit S.

PSE will submit an application to the U.S. Treasury for the Treasury Grant prior to the application deadline of September 30, 2011. The Grant application would not be processed by the U.S. Treasury until the Project achieves commercial operation, the Company is able to determine what construction costs are eligible for Treasury Grants and the Company's outside auditors complete their review and issue their limited scope audit report. PSE received the Treasury Grant for the Wild Horse Expansion within 63 days of submitting the completed application and anticipates a comparable response time for the Project. Given an expected COD of April 2012, the application would be finalized in May 2012 or June 2012. Guidance from the U.S. Treasury on how to pass the cash

grant on to ratepayers is vague and only stipulates that the Treasury Grant must be normalized. After analysis and discussion, PSE determined a ten-year normalization period for the Treasury Grant is both economical and is consistent with the time period for Product Tax Credits ("PTCs") which the Company earns from Hopkins Ridge and Wild Horse and which the Company passes through to customers. Ernst & Young and Dewey & LeBoeuf reviewed PSE's proposal to normalize the Treasury Grant over ten years for the Wild Horse Expansion, and both deemed the normalization proposal as reasonable. (See Exhibit R). The WUTC also granted approval of PSE's ten-year amortization methodology in the Company's accounting petition to the WUTC regarding the Wild Horse Expansion project (Exhibit U). However, the WUTC made clear that its normalization determination for the Wild Horse Expansion project was not precedent setting and retains the right to provide alternative normalization methodologies on future projects, if warranted. Economic analysis for the Project utilizes a ten-year normalization period.

Should PSE's application for the Treasury Grant be rejected for any reason, PSE will elect to claim PTCs. It is assumed that accounting of PTCs for the Project would be consistent with how PSE currently manages the pass-through benefits of PTCs to customers. PSE is neither aware of nor anticipating any reasons that would require PSE to elect to take the PTCs over the Treasury Grant.

D. BPA Prepaid Transmission

As shown in the financial pro forma, Exhibit H, BPA is requiring PSE to prepay \$102 million to build the Central Ferry Substation and make transmission network upgrades. BPA will refund the network upgrade portion of this prepayment to PSE through offsetting monthly credits to BPA's point-to-point transmission tariff expenses. PSE will file an accounting petition with the WUTC requesting to treat the prepayment associated with the Project as a regulatory asset in a similar manner as the treatment of the prepayment made to BPA on the Hopkins Ridge Wind Project. This will be filed upon Board of Directors approval of the Lower Snake River Project. BPA will accrue interest on PSE's deposit and on any remaining balance on BPA's books that has not yet been credited to PSE. PSE will allocate BPA's credit to interest and principal. Once the regulatory asset is approved by the Commission, PSE accounting will track and credit the interest owed the Company versus the interest owed the customer based on when the interest was

accrued. The customer's portion of interest income will be used to reduce customer transmission expense. PSE accounting will credit the principal portion to reduce the unamortized balance of the regulatory asset account. The interest allocated to the Company would be reported as interest income.

E. Other Miscellaneous Accounting

Property Accounting. PSE will capitalize its investment in the Project as an electric utility plant fixed asset and depreciate the capitalized amount over its useful life, which is assumed to be 25 years consistent with the Hopkins Ridge and Wild Horse facilities. PSE plans to unitize the capital asset within a year of placing the facility in-service, segregating its original cost into appropriate retirement units of property categories. PSE's original cost will include Allowance for Funds Used During Construction ("AFUDC")¹.

Test Power. Power generated prior to the Commercial Operation Date will be valued at fair value (for instance at the selling price to an independent purchaser or at the non-firm hourly index price at the Mid-Columbia trading hub). The benefit from the value of this power will be passed through to customers by reducing the plant investment in the Siemens wind turbine generators and thus reducing ratebase in accordance with Federal Energy Regulatory Commission ("FERC") requirements.

Renewable Energy Credits. PSE will generate 1.2 Renewable Energy Credits ("RECs") for each MWh of energy generated from the Project because PSE intends to fulfill the apprenticeship labor requirements as set out in RCW 80.80 rules in WAC 194-37. PSE intends to sell its RECs until PSE needs the RECs to be compliant with RCW 80.80. This is consistent with PSE's treatment of RECs from the Hopkins Ridge Wind Project and the Wild Horse Wind Project.

When RECs are sold, PSE places all revenues from RECs into a deferred liability account on the balance sheet. An accounting petition for RECs remains outstanding and there is no date by which the WUTC must issue a determination, but an order is likely to be

¹ Due to the build out timeframe of the remaining LSRWP phases, AFUDC will cease to accumulate on subsequent phases during periods where construction costs are not continuously incurred on a planned progressive basis. AFUDC will resume accumulation on subsequent phases as those phases resume construction activity.

received in late April 2010. Until the ruling is received, PSE will continue to defer the net proceeds.

Exhibit L

**Lower Snake River Wind Project Phase I
Stand-Alone Financial Pro Forma**

PSE Board of Directors
May 5, 2010

Exhibit L, **Confidential and Proprietary**
Facility Stand-Alone Financial Pro Forma

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Facility Description

The Lower Snake River Wind Project, Phase I ("Phase I" or "the "Project"), to be described further herein, consists of the permits, real estate rights, interconnection agreements, and other necessary rights, agreements, equipment and work to develop, construct, own and operate the 342.7 MW wind generating facility in unincorporated Garfield County, WA. The all-in cost to develop and construct the "Project is approximately \$848 million.

Description of Plant:

Project:	The 342.7 MW Project is located in unincorporated Garfield County, Washington.
Owner:	Puget Sound Energy, Inc. ("PSE")
Timing and Nature of Acquisition and Construction:	Since acquiring development rights from RES Development in December 2008 and August 2009, PSE has progressed LSRWP development activities and now seeks approval to enter into construction for Phase I. This includes a construction budget of \$█ million and execution of the following agreements: the Turbine Supply Agreement contract with Siemens Energy, Inc. ("Siemens"), the Service and Maintenance Agreement ("SMA") with Siemens, the Balance of Plant ("BOP") agreement with RES America Construction Inc. ("RES") and the execution of the Large Generator Interconnection Agreement ("LGIA") with Bonneville Power Authority ("BPA"). A Full Notice To Proceed will be issued May 6, 2010, after approval by the Board of Directors is received. Construction is expected to last approximately 22 months, with the Project projected to be online by April 15, 2012.
Limited Notice to Proceed:	The LSRWP Management Committee approved a Limited Notice to Proceed ("LNTP") on February 24, 2010. PSE then executed the LNTP with RES with a budget not to exceed \$█ million. Work to be completed during the LNTP includes road construction to BPA's Central Ferry Substation and geotechnical work for turbine locations and foundations.
Full Notice to Proceed:	PSE will execute the Full Notice to Proceed ("FNTP") no later than May 6, 2010, should the Board of Directors approve the construction on the Project. The FNTP authorizes the entire construction budget necessary to construct the 342.7 MW project. This includes, but is not limited to, the following activities: completion of roads and underground collection systems, delivery and erection of the Siemens 2.3 MW Wind Turbine Generators ("WTG"), substation build-out and energization, WTG commissioning, construction of the Operations and Maintenance building and all other work necessary to complete the entire build-out of the 342.7 MW wind facility.
Commercial Online Date:	For the purposes of this presentation to the Board of Directors, the budgeted commercial online date ("COD") is April 15, 2012. The project could reach COD earlier if the Central Ferry Substation energization is finished in a timely fashion by BPA. Given the current construction schedule for Central Ferry, an April 15, 2012 COD for the Project is conservative. For further information regarding the construction and timing of the Central Ferry Substation, please see Exhibit Q.

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Facility Stand-Alone Financial Pro Forma

Net Capacity Factor: The 342.7 MW Project is estimated to have a [REDACTED] net capacity factor, as determined by DNV Global Energy Concepts ("DNV-GEC").

Turbine Technology: 149 Siemens SWT101 2.3 MW Wind Turbine Generators.

Transmission: The Project will interconnect into the BPA transmission system at the new Central Ferry Substation. The Project output will be delivered to PSE's service territory via a transmission services agreement with BPA. BPA will be responsible for providing wind integration services, which PSE will pay for under BPA's wind integration tariff.

Real Estate: The Project will reside on approximately 36,900 acres of land that are under lease agreements with 27 separate parties. The land lease agreements allow PSE to use and occupy the land for wind generation for 35 years and include options to extend the leases for an additional 15 years.

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Facility Stand-Alone Financial Pro Forma

The Projection

The following write up and associated pro forma (the "Projection") describe the incremental financial impact the Project will have over a 25-year period through 2036.

Table 1: Total Development and Construction Budget

	\$000's	\$/kW	Percent of Total
DEVELOPMENT BUDGET			
Development Rights			
PSE Allocated Development Costs			
Interconnection Costs			
Prepaid Transmission Expense			
TOTAL DEVELOPMENT BUDGET			
CONSTRUCTION BUDGET			
Wind Turbine Generators			
TSA Contract Price			
Anticipated TSA Options			
Balance Of Plant			
O&M Building			
Step-up Transformers			
RES Contract Price			
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead			
Project Communications			
Start-up Costs			
Sales Tax			
Contingency			
TOTAL CONSTRUCTION BUDGET			
AFUDC			
TOTAL ALL-IN PROJECT COSTS	848,041	2,475	100.0%

Development Budget:

The Development Budget shown in Table 1 is the Project cost to complete development activities in preparation for the construction phase of Phase I along with BPA interconnection costs and prepaid transmission expense. The following line items explain, at a high level, what costs are included in this category.

Development Rights:

PSE purchased the LSRWP Development Rights from RES Development in December 2008 and August 2009, totaling \$[REDACTED] million. With the Development Rights purchase, PSE acquired all the work completed to date, including: real property and lease agreements, BPA prepayments, project studies, project agreements, wind resource assessment reports, project permits, met masts and other assets. Since Phase I is a portion of the total assets purchased, the cost of the Development Rights and development expenditures

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since then are allocated to each of the proposed five phases of LSRWP based on the value of each phase at the time of the Development Rights purchase (See Attachment 1). Phase I was farthest along in development at the time of the purchase, and therefore has been assigned [REDACTED] of the Development Rights cost, or \$ [REDACTED] million.

PSE Allocated
Development
Costs:

This category encompasses costs incurred to develop all five phases of LSRWP. Like the Development Rights, the Development Costs benefit the development of all five phases and are allocated based on the relative value of the assets at the time of purchase. Examples of costs included here are: ongoing real estate work, permitting, wind resource assessments, legal costs, communications / advertising, telecommunications and PSE labor and expenses.

All costs incurred in the development phase are capitalized and accrue Allowance for Funds Used During Construction ("AFUDC").

Interconnection
Costs:

In addition to the prepaid transmission expense discussed in the following section, BPA identified specific communications equipment that PSE must install in PSE's two project substations in order for the Project to interconnect into the Central Ferry Substation.

Prepaid
Transmission
Expense:

As discussed in Exhibit Q, the Project will interconnect to the new BPA Central Ferry Substation, which will be capable of interconnecting all five LSRWP phases. BPA requires PSE to fund \$99.7 million to build the Central Ferry Substation, which BPA will refund to PSE through credits based upon contracted monthly point-to-point expenses each LSRWP Phase will incur to transmit power across BPA's transmission system to PSE's territory.

Items to note:

First, like the Development Rights purchase, the prepaid amount is allocated to each phase of LSRWP based on the relative value of the assets at the time of purchase.

Second, while these expenditures are included in the Development and Construction Budget, these expenditures are not depreciable assets that PSE can place into ratebase. Rather, upon Board approval, PSE will request an accounting petition with the WUTC to establish a regulatory asset for the portion of BPA prepayments allocated to Phase I as described in Exhibit K.

Third, BPA will reimburse PSE for both the prepaid expense and will accrue interest on the remaining prepayment balance not yet refunded to PSE. Interest accrued, after approval of the Accounting Petition, will be passed on to customers. The rate for these interest credits will be based on the 10-year Treasury bill rate listed on Bloomberg at the time the LGIA is signed. PSE anticipates this rate will be 3.97% when PSE signs the LGIA May 6, 2010, assuming the Board of Directors approves the Project construction. However, the Bloomberg rate is not sufficient to fully reimburse PSE's cost of capital to fund the prepaid expense. Consequently, for the pro forma projection PSE includes the incremental financing cost between PSE's cost of capital and

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BPA's Bloomberg rate in PSE's operation and maintenance expense for as long as there is a transmission credit balance. Actual cost recovery will be achieved through the regulatory asset and these costs will not be in O&M on PSE books.

The pro rata share of the prepaid transmission costs are allocated to the Project. If other phases of LSRWP are not built, the contracted PTP transmission for Phase I will recover 100% of the prepaid transmission during the 25-year operating life of the Project.

Construction Budget:

The Construction Budget shown in Table 1 is the Project cost to complete construction. The following line items explain, at a high level, what costs are included in this category.

Wind Turbine Generators:

Siemens will supply, deliver, erect, and commission the 149 2.3 MW wind turbine generators ("WTGs") for the Project for \$ [REDACTED] million. As Siemens will carry all risks on commodity prices, transportation costs and currency risk, the total cost for wind turbines is firm and not subject to change except for mutually-agreed change orders. PSE will pay Siemens for the WTGs according to a series of milestones, including a down payment, initiation and completion of production, shipment and delivery, commissioning, substantial completion and final completion. Timing of specific milestones and associated payments is an exhibit to the Turbine Supply Agreement.

Also included in this cost category are anticipated expenses for heavy transportation towing equipment, and additional commissioning costs PSE expects to incur should the BPA Central Ferry Substation come online later than the planned December 15, 2011 date, bringing the total to \$ [REDACTED] million or \$ [REDACTED] kW.

Balance of Plant:

A provision of the Development Rights purchase established that RES will complete the construction of the Project, including the two project substations, the turbine foundations, the collection system, the roads and the operations and maintenance building. The Balance of Plant ("BOP") work will be initially priced on an open-book basis, meaning the price will be established based on costs proposed for identified line items plus a construction margin. Once PSE has agreed to scope and subcontractors, the pricing will be fixed, although subject to adjustment for mutually-agreed change orders.

The current quote for BOP work to be performed by RES is \$ [REDACTED] million. Charges also included in the BOP category are the LNTP work scope, substation step-up transformers and the PSE O&M building for the Project. The total cost for all work under the BOP category is \$ [REDACTED] million.

PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community

The PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead budget includes costs associated with PSE's managerial oversight of the construction phase, ongoing real estate work, required environmental assessments, wind resource monitoring, power performance testing, engineering work for roads, collector systems and substations, PSE's internal overhead rate, and construction insurance. A further breakout of this work is shown below:

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Relations, and
 Overhead:

\$000's	2010	2011	2012	Total
PSE Project Management				
Labor, Expenses, Labor Overhead				
Construction OH				
Total				
Wind Resource				
Analysis				
Met Tower Maintenance				
Power Performance Testing				
Total				
Real Estate				
Land Lease Payments				
Construction Payments				
O&M Land Purchase				
Survey Costs				
Environmental Site Assessment				
Title Insurance				
Total				
Permitting				
Garfield County Cost Reimbursement				
Cultural Resource Monitoring				
Environmental Consultants				
Total				
Legal				
Dewey & LeBoeuf				
Total				
Engineering				
Construction Monitoring				
Owner's Engineer				
Total				
Community Relations				
Informational Events				
Publications				
Community Projects				
Project Documentation				
Total				
Insurance				
Construction Insurance				
Total				
Total *				

Project
 Communications
 :

Project Communications includes expenditures for equipment used to monitor WTGs and connect the Project to PSE's Load Office and Trade Floor.

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Start-up Costs: Capital costs included in the Start-up Costs category are a credit for test power, turbine service and maintenance service prior to COD, and PSE radio equipment.

The Test Power category accounts for revenues received for power generated during the commissioning phase, which for the Project is January through April 2012. As turbines are commissioned, they will operate as wind is available, subject to any operating constraints, until the COD is achieved. Test power will either be sold or used to offset market purchases PSE makes to balance its load. This offset is estimated to be \$ [REDACTED] million, based on the Official Forward Price Marks for the Mid-Columbia energy prices from March 19, 2010. In accordance with FERC requirements, Test Power revenues are treated for financial purposes as a reduction in the book and tax values of the turbine costs [REDACTED]. However, for capital expense presentation purposes, this effect is shown separately from Wind Turbine Costs.

During the commissioning phase, Siemens will conduct preliminary service and maintenance of the turbines before the five-year Service and Maintenance Agreement for the WTGs begins. These costs are included in the construction budget as they are necessary to ensure proper function of the WTGs before the Project reaches COD. Turbine Service and Maintenance during this period is projected to be \$ [REDACTED].

Other Costs also includes \$ [REDACTED] for communications equipment that will enable service and support staff to communicate with each other at the project site.

Sales Tax: In Washington state, renewable generating assets like wind are 100% exempt from sales tax through June 30, 2011. The sales tax exemption provision begins to sunset thereafter. From July 1, 2011 through June 30, 2013, renewable generating assets are exempt from 75% of current sales tax rates applicable to non-renewable generating assets. A wind generating asset is considered to be anything that participates in the generation and delivery of power, from the tip of the blade to the substation. Items such as roads, crane pads, quarry site, etc. used or built during construction are not tax exempt.

For qualifying assets, sales tax exemption is determined via two different, but not exclusive, methods. First, wind generating assets are 100% sales tax exempt if PSE has title of the assets by June 30, 2011. Second, if PSE does not hold title of the qualifying assets by June 30, 2011, all costs invoiced on or before June 30, 2011 will be 100% sales tax exempt. If PSE does not have title nor is invoiced by June 30, 2011, those assets will be taxed at 25% the normal sales tax rate. For pro forma purposes, PSE has taken the more conservative approach of estimating sales tax for the Project based on anticipated invoice payments for turbines and other qualifying assets.

Sales tax in Washington State is 6.5% and sales tax in unincorporated Garfield County is 1.0%.

Contingency: Contingency is added to the project budget to account for cost risk and

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Facility Stand-Alone Financial Pro Forma

unknown change orders as certain expenditures remain unknown.

AFUDC: Allowance for Funds Used During Construction is calculated using the allowed rate of return of 8.1% for book purposes. For tax basis, the Company capitalizes the equity portion of the actual construction period interest.

Financing Note: As described below in the Income Statement section, pursuant to reaching the COD, PSE will submit an application to the United States Treasury for the Treasury Grant. The Treasury Grant provision was included in the American Recovery and Reinvestment Act ("ARRA") and is designed to stimulate investment in renewable energy by giving developers a 30% cash grant for eligible capital invested in a project.

As detailed in Exhibit N, the Treasury Grant is more economically favorable to the Project than either Production Tax Credits ("PTCs") or the Investment Tax Credit.

The Treasury rules implementing the ARRA include a Safe Harbor provision that mandates that 5% of the total project capital cost eligible for the Treasury Grant must be spent by December 31, 2010. Exhibit S describes the types of capital that must be spent by December 31, 2010 to meet this Safe Harbor provision.

Table 2 shows an estimate of the total qualifying cost of the Project and the estimated expenditures in 2010 that will count toward the qualifying cost. PSE will spend an estimated 16% of the total eligible capital cost for the Treasury Grant by December 31, 2010.

Table 2: 2010 Expected Grant Qualified Expenditures

2010 Grant Qualifying Costs	\$	Percent
Development Rights	\$	
Development Costs	\$	
Interconnection Costs		
Prepaid Transmission Expense		
Wind Turbine Generators	\$	
Balance Of Plant	\$	
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead	\$	
Project Communications		
Start-up Costs		
Sales Tax		
Contingency	\$	
AFUDC	\$	
Total 2010 Grant Qualifying Expenditures	\$	
Total Grant Qualifying Costs	\$	100%

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Income Statement – Assumptions

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Income Statement										
Regulated Revenue										
Annual Capacity Factor										
Annual Net Energy (GWh)										
Fixed Costs										
Fixed Transmission										
Fixed Transmission Credit										
Return on Prepaid BPA Transmission										
Operation Expenses										
Property Tax										
Variable Costs										
Variable Transmission										
Renewable Energy Credit Revenues										
Total Operating Expenses										
EBITDA										
Depreciation & Amortization										
EBIT										
Net Interest Expense										
Interest Expense										
Net Interest Expense										
Pre-Tax Income										
Taxable Income										
Pre-tax Income										
Plus Depr. & Amort.										
Less Tax Depreciation										
Net Taxable Income										
Less: Capital Transaction gain/(loss)										
Taxable Income										
Current Income Tax										
Deferred Income Tax										
Treasury Grant										
Net Income										

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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Income Statement										
Regulated Revenue										
Annual Capacity Factor										
Annual Net Energy (GWh)										
Fixed Costs										
Fixed Transmission										
Fixed Transmission Credit										
Return on Prepaid BPA Transmission										
Operation Expenses										
Property Tax										
Variable Costs										
Variable Transmission										
Renewable Energy Credit Revenues										
Total Operating Expenses										
EBITDA										
Depreciation & Amortization										
EBIT										
Net Interest Expense										
Interest Expense										
Net Interest Expense										
Pre-Tax Income										
Taxable Income										
Pre-tax Income										
Plus Depr. & Amort.										
Less Tax Depreciation										
Net Taxable Income										
Less: Capital Transaction gain/(loss)										
Taxable Income										
Current Income Tax										
Deferred Income Tax										
Treasury Grant										
Net Income										

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Revenues:

Revenue Requirement: The Projection calculates revenues required to recover the Project operating expenses, the capital investment, plus the cost of capital to finance the Company's investment in ratebase.

The revenue requirement calculation is an indicator of the cost to customers under assumptions of perfect regulation. While the pro forma assumes perfect regulation, there is frequently a lag between the time a project is placed in service and when the project is included in customers' rates. RCW 80.80 allows utilities to defer all costs associated with renewable energy investments and generation until prudence is determined by the Washington Utilities and Transportation Commission ("WUTC"). Once the project is placed into rates, recovery of deferred costs occurs over a specific time period as specified by the WUTC. Exhibit K explains the accounting and regulatory plan associated with placing the Project in rates in more detail.

Annual Capacity Factor: The Projection uses the DNV-GEC Net Capacity Factor ("NCF") and monthly wind generation profile submitted in the final wind resource report dated March 3, 2010 to predict average annual wind generation from the Project. Overall, the Project is expected to have a [REDACTED] NCF over 25 years. The NCF is a P50 average value, which means that on average one half of the operating years will result in production over [REDACTED] and one half of the operating years will result in production under [REDACTED]. Please see Exhibit P-1 for a copy of the wind resource report from DNV-GEC.

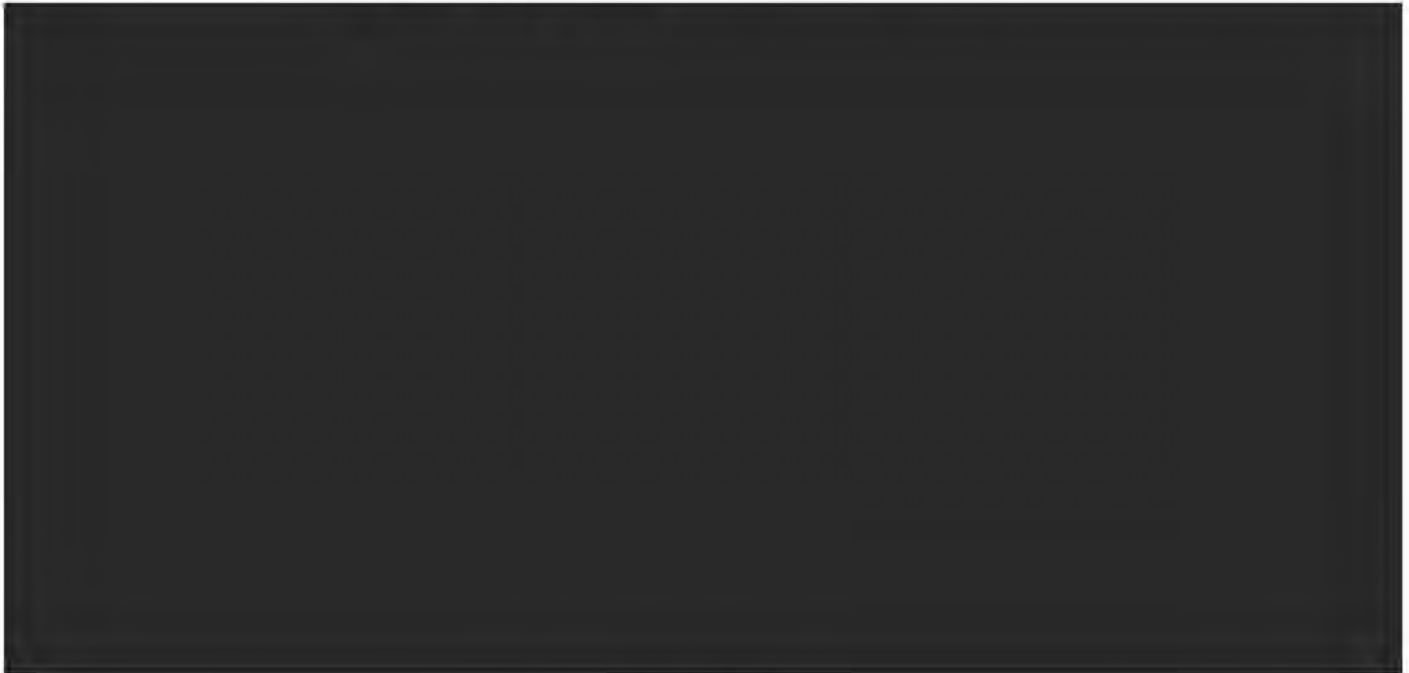
Annual Energy: Annual Energy is equal to the NCF multiplied by the Project Capacity multiplied by the number of hours in the year. Generation from the Project will yield about [REDACTED] MWh annually [REDACTED]. In 2012 and part of 2013, the Project may experience curtailment issues of up to 200 hours on 92.7 MW because BPA has yet to grant PSE its full request for firm transmission on 342.7 MW. PSE's original transmission request through BPA's Network Open Season was for 250 MW in 2012 and 250 MW in 2013. As PSE's development plans evolved, the Company decided that a 342.7 MW Phase I project was the optimal project. As a result, PSE expects that it will have firm transmission rights on 250 MW of the Project when it reaches the COD. PSE will rely on conditional firm transmission rights through mid-2013 for the balance, which is when PSE anticipates it will receive firm transmission rights for the remaining 92.7 MW of nameplate capacity. It is possible that BPA may curtail the Project generation over 250 MW during the period in which PSE does not have firm transmission rights. For the Projection, PSE assumes curtailments may occur for 200 hours per year on the 92.7 MW. This is a conservative assumption in that it is unlikely that a curtailment will fully affect 92.7 MW as curtailments will, generally, only occur when the transmission system is fully loaded; which, in practice, tends to occur only during the spring runoff, if then. Therefore, total curtailment could be much less, depending on weather conditions present during an event. Curtailment has been taken into account on the Project financial performance. Please see Exhibit Q for additional detail on transmission rights on BPA's system.

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Monthly Energy Distribution: The Projection makes use of monthly energy distribution for partial year operation since COD is projected to occur April 15, 2012. The Projection pro-rates energy production and variable expenses for 2012 according to the table below. The monthly distribution of Annual Energy assumed by the Projection beyond 2013 is as follows:

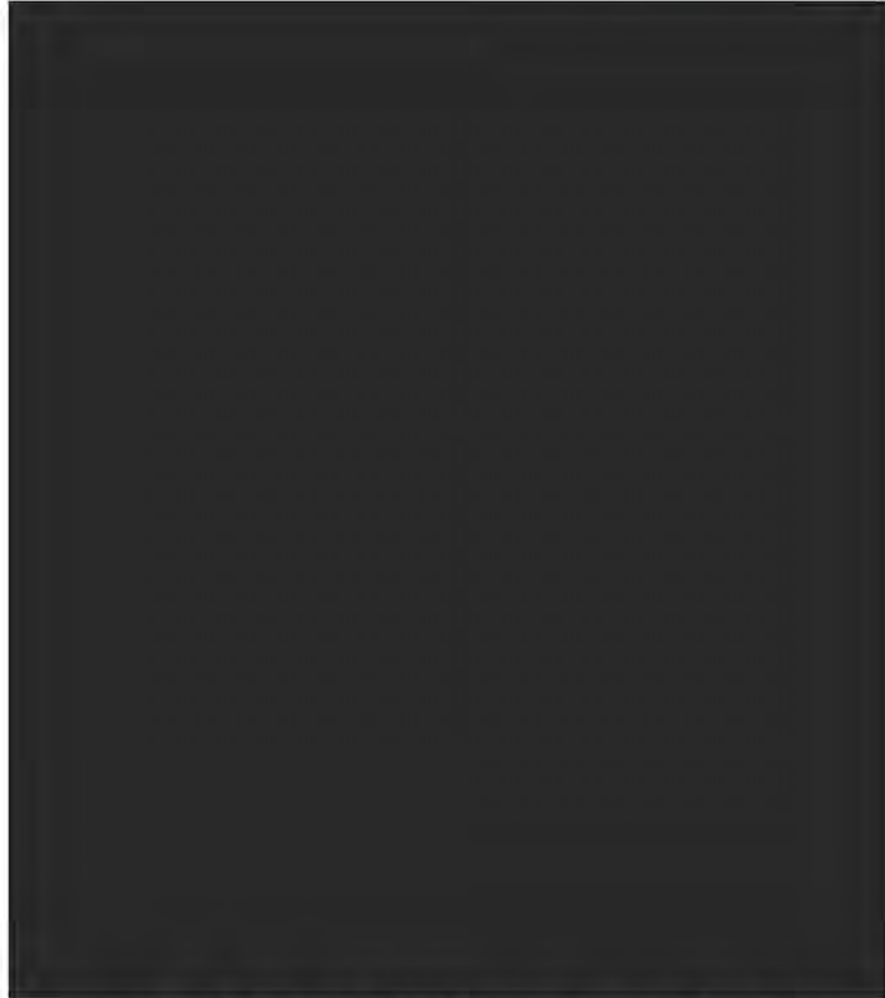


Fixed Costs:

All Fixed Costs below are identified for 2012, the first partial year of operation, and 2013, the first full year of operation for the Project.

Inflation: Both fixed and variable costs, other than PSE O&M expenses and land royalties, beyond 2012 are escalated over time by using Global Insight's projected inflation rates. The Projection uses inflation rates to adjust Siemens service and maintenance agreement costs, fixed and variable transmission expenses, and insurance premiums. Global Insight is a well respected firm providing macro economic data and is also used in PSE's IRP and load growth estimations. Global Insight's inflation projection is as follows:

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Fixed
Transmission:

Transmission from the Project to PSE's service territory flows across the BPA transmission system. BPA's fixed transmission tariff includes charges for Point-To-Point ("PTP") transmission service, Scheduling, and Wind Integration. BPA holds bi-annual rate cases every other September to modify the aforementioned tariffs. Tariff increases for PTP and Scheduling over the past several cases have been about 4% to 6%. To simplify tariff increase calculations, PSE escalates these transmission expenses annually by Global Insight's projected inflation rates, which hover around 2.2%. On average, two annual increases at the Global Insight inflation rates tend to closely reflect the bi-annual BPA tariff increase for PTP and Scheduling.

BPA has only had two wind integration tariff rate cases as wind integration rates are new to the industry. BPA's wind integration tariff in 2007 was \$0.64 / kW month. Two years later, BPA doubled the wind integration rate to \$1.29 / kW. Given that there is little precedence on wind integration rates and doubling the rate every two years is virtually unsustainable, PSE also increases this rate annually by the Global Insights figures.

Below is a breakdown of all fixed transmission costs for 2012 and 2013:

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Fixed Transmission	\$ / Unit (2012)	2012	2013
Point To Point (\$ / kW Month)	\$1.40	\$ 3,990,397	\$ 5,736,856
Scheduled (\$ / kW Month)	\$0.22	\$ 624,076	\$ 897,212
Wind Integration (\$ / kW Month)	\$1.39	\$ 3,965,803	\$ 5,701,497
Fixed Transmission Total		\$ 8,580,277	\$ 12,335,565

Fixed
Transmission
Credit:

As described above in the section on Prepaid Transmission, BPA will refund the full \$99.7 million prepayment to build the Central Ferry Substation. For purposes of this Phase I pro forma, BPA refunds the \$ million allocated to the Project. The Fixed Transmission Credit is either the current or accumulated interest payments on the prepaid transmission. These credits offset a portion of the annual PTP expense. Annual Fixed Transmission Credits are calculated in the following manner:

The first credit toward the PTP expense is the Current Year BPA Interest on the balance of Prepaid Transmission that is allocated to the Project and has not yet been refunded. BPA pays interest on PSE's prepaid transmission balance. The interest rate BPA applies to the prepaid transmission balance is assumed to be 3.97%, is based on a 10-year Bloomberg rate for Treasury bonds, and remains constant through the time the prepaid balance is refunded. Since the PTP expense is greater than the Current Year BPA Interest on Prepaid Transmission, 100% of this interest payment is included in the Fixed Transmission Credit to offset PSE's PTP expense.

The Current Year BPA Interest on Prepaid Transmission does not offset 100% of PSE's annual PTP Expense. A second credit is included in the Fixed Transmission Credit category, called the Amortization of Prior Period Cumulative BPA Interest on Prepaid Transmission. BPA began accruing interest to PSE's prepayment account from the date that RES and PSE started making prepayments on the Central Ferry Substation. The interest accrued after the approval of the accounting petition by the WUTC is also credited to reduce transmission expense. The interest balance on the prepayment amount, post regulatory asset approval, when the Project reaches COD is approximately \$3.7 million. In 2012, a portion of Cumulative BPA Interest on Prepaid Transmission is used to fulfill the remaining credit balance needed to fully offset PTP expense in 2012.

The Fixed Transmission Credits calculated above flow back to PSE customers by lowering transmission expense and thus lowering revenue requirements. In 2013, the Current Year Interest plus the Amortization of the Prior Period Cumulative BPA Interest on Prepaid Transmission is not sufficient to fully offset the PTP expense. PSE allocates the remaining principal portion of the BPA credit to amortize the prepaid regulatory asset.

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Fixed Transmission Credit	2012	2013	2014
PSE Point To Point Expense	\$ 3,990,397	\$ 5,736,856	\$ 5,858,035
Credits Toward PSE PTP Expense			
Current Year BPA Interest on Prepaid Transmission	\$ 1,836,304	\$ 2,338,095	\$ 2,199,220
Amortization of Cumulative BPA Interest on Prepaid Transmission	\$ 2,154,093	\$ 1,568,853	\$ -
Fixed Transmission Credit Total	\$ (3,990,397)	\$ (3,906,949)	\$ (2,199,220)
Amortization of Prepaid Transmission Regulatory Asset	\$ -	\$ 1,829,907	\$ 3,658,815
Total Offset to PSE PTP Fixed Transmission Obligation	\$ (3,990,397)	\$ (5,736,856)	\$ (5,858,035)

Return on
Prepaid BPA
Transmission:

If approved by the WUTC as a regulatory asset, the \$ [REDACTED] million prepayment allocated to the Project will earn PSE's pre-tax cost of capital. This expense is calculated by multiplying the pre-tax cost of capital of 10.60% by the average current period's prepaid balance and the balance for previous periods.

Operations
Expense:

Operations expenses are shown below for the first partial year of operation in 2012 and for a typical full year in 2013. PSE budgeted operation expenses associated with hiring and training 6 new staff members and incremental internal demands on PSE's existing staff. Other costs are incremental fleet requirements, general supplies, utility costs, consulting services and wind forecasting services. The production payments for landowners are explained in the section immediately following. These expenses are escalated annually at an assumed rate of 2.5%, which is generally consistent with PSE's experience at its existing wind facilities.

Operating Expenses	2012	2013
Power Generation & Other PSE Personnel		
Vehicle Expenses		
Conferences & Training		
Professional & Site Services		
Office Equipment, Supplies & Leases		
Backfeed Power		
Utilities (Excluding Backfeed Power)		
Communication Services		
Operating Supplies & Expenses		
Safety & First Aid Expenses		
Production Payments		
Forecasting Services		
Other Operating Expenses		
Operating Expenses Total		

Production
Payments:

All land on which the Project resides is under long term lease from 27 different landowners. In exchange for owning and operating the Project, PSE will pay landowners an ongoing production payment of \$ [REDACTED] per MWh for the generation from the 149 turbines that will be placed on the Project property. The production rate contractually escalates at a rate of [REDACTED]% per annum.

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Production Payments					
	WTGs	\$ / MWh	Inflation Rate	2012	2013
Production Payments	149				
Production Payments Total	149				

Maintenance Expense:

In concert with the Siemens Turbine Supply Agreement ("TSA"), PSE negotiated a Service and Maintenance Agreement ("SMA") for the annual maintenance of the 149 turbines. The maintenance expense for the Project is primarily comprised of the costs associated from this five-year SMA. Other incremental maintenance expense in the form of non-Siemens professional services is based on the current experience and needs of the original Wild Horse and Hopkins Ridge Projects. The 2012 and 2013 maintenance costs are itemized below.

Maintenance Expenses	2012	2013
Siemens S&M Agreement		
Other Services & Maintenance		
Other Maintenance Expenses		
Maintenance Expenses Total		

Transmission & Substation Expenses:

The cost for transmission and substation expenses is based on current experience at the Wild Horse and Hopkins Ridge Projects to maintain the substations and distribution lines on project lands.

Transmission & Substation Expenses	2012	2013
Substation Maintenance		
OH 34.5KV Distribution Maintenance		
230KV Transmission Maintenance		
UG 34.5KV Distribution Maintenance		
Other Transmission & Substation Expenses		
Transmission & Substation Expenses Total		

Environmental Expenses:

The Project has certain permit obligations that require the Company to conduct ongoing environmental monitoring and studies. PSE labor is also reflected in this category. In 2012 and again in 2014, PSE will conduct a thorough avian study which has been included in this pro forma. Annual fees for licenses and permits are also captured.

Environmental Expenses	2012	2013
Supervisor & Engineering - Other Pwr Gen		
Environmental Monitoring-Other		
Hazardous Waste Disposal		
Licenses, Permit & Reg. Fees		
Other Environmental Expenses		
Environmental Expenses Total		

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Property Tax: The Washington Department of Revenue ("DOR") centrally assesses PSE's annual tax on personal property. The personal property tax is calculated by the product of the following: the personal property value, the Garfield County estimated levy rate of \$11.22 per \$1,000 of assessed value, the ratio of 91.5% and a discount factor of 0.388. There is no real property tax payment associated with the Project because PSE did not acquire any land as part of the Project.

In Washington State, property is assessed on January 1st of each calendar year with taxes paid in April and October of the following year, in arrears. The Projection illustrates property taxes on an accrual basis, consistent with PSE's accounting practices.

Cost calculation for a typical year:

Annual Property Taxes	2012	2013
Year Paid	Pay in 2013 / Acrd 2012	2014 / Acrd 2013
Property Type	Personal	Personal
Value		
Levy		
Ratio		
Discount Rate		
Tax	\$	

Insurance: PSE will add the Project to its permanent property insurance program with an insured replacement value of approximately \$ [REDACTED] million, which is the all-in capital cost less Development Rights, Development Costs, Prepaid Transmission Expense, most Start-up Costs, AFUDC, and the majority of PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead costs. PSE's permanent insurance program assesses an insurance rate of \$ [REDACTED] per \$100 of replacement value. While the insurance rate has generally remained constant over the last few years, the insured replacement value does generally increase and is adjusted annually using Global Insight's inflation rate.

Insurance	2012	2013
Replacement Value	\$ [REDACTED]	[REDACTED]
Premium per \$100 of Insured Value	[REDACTED]	[REDACTED]
Insurance Total	\$	

Variable Costs:

Variable Transmission: Variable transmission costs are comprised of five components as described below.

1. Energy Imbalance: The charge related to imbalances that are calculated as the difference between actual and scheduled energy at a point of receipt or point of delivery over a scheduling period.
2. Spinning Reserves / Scheduling: PSE costs associated with BPA's scheduling and spinning reserve requirements.

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3. Supplemental / Reactive VAR: BPA charge for providing additional VAR support during grid events.
4. Losses: The cost of the power lost due to resistance in transmission lines. Losses are purchased from BPA to replace 1.9% of total generation.
5. Day Ahead Operating Costs: PSE cost to integrate wind on a day-ahead basis.

Cost calculation for a typical year:

Variable Transmission	\$ / MWh	2012	2013
Energy Imbalance Costs	\$1.06	\$ 579,992	\$ 868,648
Spinning / Scheduled Var	\$0.22	\$ 122,459	\$ 183,405
Supplemental / Reactive Var	\$0.22	\$ 118,295	\$ 177,170
Losses	\$1.50	\$ 818,306	\$ 1,225,567
Day Ahead Operating Costs	\$1.02	\$ 557,022	\$ 834,246
Variable Transmission Total		\$ 2,196,075	\$ 3,289,035

Renewable
Energy Credits:

PSE intends to sell of the renewable energy credits ("RECs") generated from the Expansion until the Company needs RECs to be compliant with RCW 80.80, the law that established the renewable portfolio standard in Washington. For the purposes of this Projection, PSE has conservatively valued RECs at approximately \$ [REDACTED] per MWh in 2012.

A stipulation of RCW 80.80 allows PSE to accumulate RECs at a 1.2 multiple if at least 15% of all labor hours accumulated during construction of a renewable project is comprised of apprenticeship labor. PSE will employ apprentice labor during construction to meet this stipulation. As the 1.2 multiple is a product of Washington State law only, it is unlikely that PSE will be able to sell the additional 20% of RECs in the Northwest voluntary market. However, the additional 20% of RECs from the Project will enable PSE to sell 20% more RECs from its existing wind projects such as Hopkins Ridge, Wild Horse and Klondike III. As a result, the Projection reflects the incremental estimated revenue from REC sales including the 1.2 multiple for apprentice labor:

Renewable Energy Credits	2012	2013
Generation (MWh)	[REDACTED]	[REDACTED]
REC Multiplier	[REDACTED]	[REDACTED]
REC Price Forecast	\$ [REDACTED]	\$ [REDACTED]
Renewable Energy Credits Total	\$ [REDACTED]	\$ [REDACTED]

This Projection models REC revenue as a negative variable expense and is therefore passed straight through to the customer in the form of a lower annual revenue requirement. However, when RECs are sold, PSE places all revenues from RECs into a deferred liability account on the balance sheet. An accounting petition for RECs remains outstanding and there is no date by which the WUTC must issue a determination, but an order is likely to be received in late April 2010. Until the ruling is received, PSE will continue to defer the net proceeds.

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Other Costs and Calculations:

EBITDA:	Earnings before interest, taxes, depreciation and amortization ("EBITDA") are calculated as revenues less all operating expenses.
Depreciation and Amortization:	The Projection models depreciable lives for book and tax purposes. For book depreciation, all assets except land are depreciated using the straight line method. All assets except transmission and O&M-related assets are depreciated over 25 years. Transmission assets are depreciated over 45 years. For tax purposes, all assets except land, AFUDC and transmission assets receive a 5-year Modified Accelerated Cost Recovery System ("MACRS") treatment. Transmission assets are depreciated using a 15 year MACRS rate and land and AFUDC costs are not depreciated from a tax perspective. In addition to the land and AFUDC adjustments to the tax depreciation basis, one half of the Treasury Grant is also removed from the tax depreciation basis. For the methodology behind this adjustment, please see Exhibit V.
EBIT:	Earnings before interest and taxes are equal to EBITDA less Depreciation and Amortization.
Interest Expense:	Interest Expense is calculated based on PSE's mid-year pro forma rate base multiplied by the assumed debt percentage in the capital structure. This method is consistent with conventions used by regulated utilities. The Projection assumes a rate of return of 8.10% and a debt percentage of 54.00% at a weighted pretax cost of 6.39%. These rates are based on the rate schedule published April 1, 2010 by the Washington Utilities and Transportation Commission.
Pretax Income:	Pretax income is equal to EBIT less Interest Expense.
Net Taxable Income:	Net Taxable Income is equal to Pretax Income plus book depreciation and amortization, less Tax Depreciation.
Income Taxes Paid:	Income Taxes paid are calculated as Net Taxable Income multiplied by the Federal corporate income tax rate of 35%.
Deferred Income Taxes:	Deferred Income Taxes are calculated as the difference between book and tax depreciation expenses multiplied by the Federal corporate income tax rate of 35%.
Treasury Grant:	As described in Exhibit K, PSE will apply for the Treasury Grant pursuant to reaching the COD of the Project because it is the most economical renewable incentive available to the Project. The Treasury Grant amount is 30% of eligible capital investment spent to develop a renewable generating project. The Treasury Grant amount PSE will receive for the Project is calculated by multiplying the eligible capital expenditures as identified in the Financing Note section above, which is \$695.7 million, by 30%. By that calculation ($\$695.7 \text{ million} * 0.30$), the Treasury Grant for the Project will be about \$209 million.

Exhibit V explains the accounting methodology and procedures for passing the Treasury Grant monies to PSE ratepayers. In short, PSE expects to normalize this balance, passing the benefit back to customers over a 10 year period

consistent with Exhibit T

When PSE receives the Treasury Grant, the Company will create a Regulated Liability on the Balance Sheet. Each year, amortization of the Treasury Grant will offset the Project specific regulated revenue requirement, thereby passing the benefit of the Treasury Grant on to ratepayers in the form of lower rates. The regulated revenue identified in the Income Statement provided above is already offset by the 10-year straight-line amortization of the Treasury Grant. Since PSE invested the capital in the plant and needs reimbursement for that investment, the Company will also recognize the Treasury Grant in the Income Statement, net-of-tax via the same 10-year normalization methodology. The table below illustrates the annual amortization amounts for the partial operating year in 2012 and the first full year of operation as identified on the Income Statement.

Treasury Grant	2012	2013
Treasury Grant Basis	\$ 695,734,722	\$ 695,734,722
ITC Grant Rate	30%	30%
Years Normalized	10	10
Investment Tax Credit Grant Total		

Retained
Earnings:

Retained Earnings are calculated as the previous year's Retained Earnings balance plus Net Income, less Dividends Paid. The balance sheet contains no line items for cash or short-term debt, and the Projection assumes that any cash shortfalls or surpluses are financed with debt. This calculation flows into the Equity category below.

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Balance Sheet – Assumptions

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Balance Sheet										
Retained Earnings										
Opening Balance										
Plus Net Income										
Less Dividend Paid										
Retained Earnings										
Assets										
Utility Plant:										
PPE										
Accumulated Depreciation										
Prepaid Transmission Expense										
Accumulated Amortization										
Net PPE										
Total Assets										
Liabilities										
LT Debt										
Debt Principal Paid										
Accumulated Deferred Tax										
Total Liabilities										
Equity										
Common Shares										
Retained Earnings										
Total Equity										
Total Liabilities and Equity										

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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Balance Sheet										
Retained Earnings										
Opening Balance										
Plus Net Income										
Less Dividend Paid										
Retained Earnings										
Assets										
Utility Plant:										
PPE										
Accumulated Depreciation										
Prepaid Transmission Expense										
Accumulated Amortization										
Net PPE										
Total Assets										
Liabilities										
LT Debt										
Debt Principal Paid										
Accumulated Deferred Tax										
Total Liabilities										
Equity										
Common Shares										
Retained Earnings										
Total Equity										
Total Liabilities and Equity										

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Assets:

Property Plant and Equipment ("PPE")	For book purposes, the value of the plant reflects capitalization of all the Project capital costs.
Accumulated Depreciation:	Accumulated Depreciation is the sum of the annual depreciation identified in the Income Statement and offsets the total PPE in the line above.
Prepaid Transmission Expense:	As explained earlier, the prepaid transmission payments PSE makes to BPA are placed on the Balance Sheet as a regulatory asset because it is a prepaid expense that PSE anticipates will be reimbursed through rates.
Accumulated Amortization:	Accumulated Amortization refers to the annual amortization of the point-to-point transmission expense that PSE receives from customers, net of any transmission interest credits passed on to ratepayers.

Liabilities & Equity:

The Projection models financing activities for the Project based on the assumption that PSE has to issue new debt and equity to fund this specific Project. The Projection assumes perfect financing activities to accurately reflect the incremental regulated debt and equity cost to revenue requirements. However, PSE may in practice use a combination of current short and long-term debt and equity to fund the Project.

Liabilities:

Long Term Debt:	Long term debt is based on a capital structure of 54.00% debt. Based on a total capital cost of \$848 million, long term debt totals approximately \$458 million. Consistent with regulated utility modeling methods, debt is repaid in a fashion that allows the Projection to maintain PSE's equity/debt split on the Balance Sheet throughout the life of the Project. This is accomplished by equating debt payment to the sum of depreciation, deferred tax, and working capital multiplied by the PSE debt percent.
Debt Principle Paid:	Debt Principle Paid is the cumulative principle paid on the Long-Term debt issued to finance the Project.
Accumulated Deferred Taxes:	Accumulated Deferred Taxes is calculated as the deferred tax balance from previous year plus/less the deferred tax balance from current year.

Equity:

Common Shares:	Common Shares is the cumulative capital contributions from equity holders.
Retained Earnings:	Retained Earnings is the repayment of the initial equity invested in the Project. Calculations are described at the beginning of the Balance Sheet section.

Cash Flow – Assumptions

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash Flow										
Operating Cash Flow										
Net Income										
Depreciation										
Deferred Taxes										
BPA Non-cash Expense										
Total Operating Cash										
Investment Cash Flow										
Capital Investment in Plant										
Total Investment Cash										
Financing Cash Flow										
New Equity										
Dividends Paid										
New Debt										
Debt Repayment										
Total Financing Cash										
Net Cash Flow										

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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Cash Flow										
Operating Cash Flow										
Net Income										
Depreciation										
Deferred Taxes										
BPA Non-cash Expense										
Total Operating Cash										
Investment Cash Flow										
Capital Investment in Plant										
Total Investment Cash										
Financing Cash Flow										
New Equity										
Dividends Paid										
New Debt										
Debt Repayment										
Total Financing Cash										
Net Cash Flow										

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Operating Cash Flow:	Operating Cash Flow is calculated as the sum of After Tax Net Income and depreciation from the Income Statement plus the change from the previous year in deferred taxes and working capital balances from the Balance Sheet. The amortization of the BPA prepaid transmission expense is also included in the Operating Cash Flow as a non-cash expense. This is a transmission charge to customers that is credited back to PSE from BPA as a means of recovering the principal investment in the Prepaid Asset identified in the Balance Sheet.
Investment Cash Flow:	Investment Cash Flow is calculated as the capital expenditures net of any gain/loss on investments. This section only reflects the initial investment made to construct the Project.
Financing Cash Flow:	Cash from Financing is cash received from/paid to debt holders, and cash received from/paid to equity holders. Debt and equity is repaid in a fashion that allows the Projection to maintain PSE's capital structure ratio on the balance sheet throughout the life of the Project. This is accomplished by multiplying the weight of debt by the value equal to the total operating cash minus net income. All available Cash from Operations is distributed to equity holders net of the debt repayment. This cash distribution methodology results in the Projection showing negative cumulative retained earnings.
2010 – 2012 Construction Budget:	Table 3 below display the projected cash outlays between 2010 – 2012 for the Construction Budget. Included in this budget are costs for WTGs, BOP work, PSE Project Management, PSE Phase I Development Activities, Overhead, Project Communications, Start-up items, Sales Tax, and Contingencies.

Table 3: 2010 – 2012 Construction Budget

2010 - 2012 Construction Budget Expenditures (000's)	2010 Total	1/31/10	2/28/10	3/31/10	4/30/10	5/31/10	6/30/10	7/31/10	8/31/10	9/30/10	10/31/10	11/30/10	12/31/10
	Construction Budget Category												
Wind Turbine Generators													
Balance Of Plant													
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead													
Project Communications													
Start-up Costs													
Sales Tax													
Contingency													
Construction Budget Category													
Wind Turbine Generators													
Balance Of Plant													
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead													
Project Communications													
Start-up Costs													
Sales Tax													
Contingency													
Construction Budget Category													
Wind Turbine Generators													
Balance Of Plant													
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead													
Project Communications													
Start-up Costs													
Sales Tax													
Contingency													

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DATE: March 17, 2010
TO: Roger Garratt
FROM: Michael Mullally, Paul Wetherbee
SUBJECT: Lower Snake River Wind Energy Project Cost Allocations

Executive Summary

Puget Sound Energy entered into the Joint Development Agreement (“JDA”) with an affiliate of RES America Developments Inc. (“RES”) in December 2008 and subsequently acquired all of RES’ remaining interest in the Lower Snake River Wind Energy Project (“LSRWEP”) in August 2009. Development fees paid as part of these two transactions will be capitalized and put into rates as the different Phases of this Project achieve commercial operation. However, the different anticipated commercial operation dates necessitate allocating certain costs to the different LSRWEP Phases. As part of the closing process for both transactions, RES provided pricing schedules and prospective capacities for the assets purchased. This information is the basis of the 58.72% (See **Table 3**) allocation of certain costs to Phase I of the LSRWEP.

Wind Resource Areas and Pricing

The Lower Snake River Wind Energy Project was originally presented to PSE as containing four distinct Wind Resource Areas (“WRAs”) to be developed in the following order: Oliphant Ridge, Tucannon, Kuhl Ridge, and then Dutch Flats. After execution of the JDA the location of the Central Ferry substation was solidified so the WRA development order, and consequently the corresponding values, changed slightly: Oliphant Ridge, Kuhl Ridge, Tucannon, and then Dutch Flats. The projected capacity of each WRA per RES is included in **Appendix I** and summarized in **Table 1** below.

Table 1 – WRA Capacity Projection

<u>Resource Area</u>	<u>Projected MWs</u>
Oliphant Ridge	200
Tucannon	500
Kuhl Ridge	300
Dutch Flats	250
Total	1,250

Figure 1 graphically depicts the four original LSRWEP WRAs as well as the existing Hopkins Ridge, Marengo I, and Marengo II Projects. The map also overlays LSRWEP Phase I over the Kuhl Ridge and Oliphant Ridge WRAs.

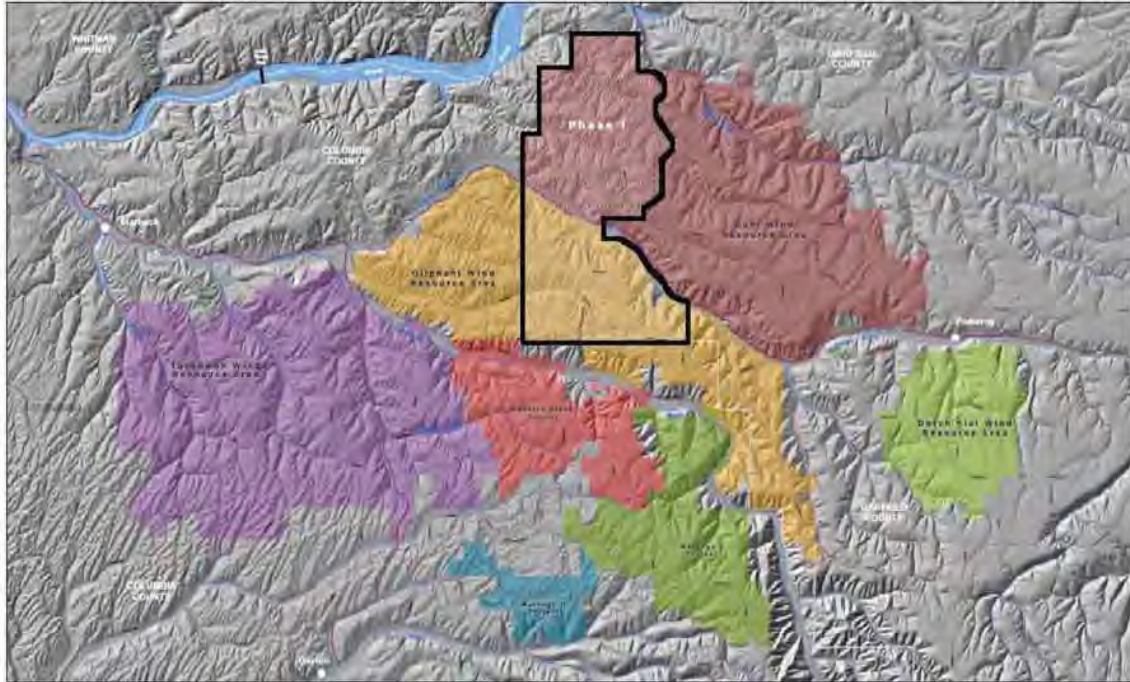


Figure 1 – LSRWEP Geography

The basis price for each of the different WRAs included real estate leases and easements, meteorological masts and related equipment, interconnection and transmission contracts, studies, and permits. The value of the different WRAs was determined by an Area’s development progress, which was a function of the presumed development order of the overall Project. In December 2008, Oliphant Ridge and Tucannon were assumed to be closest to the location of the BPA Central Ferry Substation and would therefore be the first Areas placed into service. Consequently, a good deal of time, effort, and resources were spent securing land leases and progressing interconnection studies for these WRAs. This work was reflected in the sale price of the JDA assets. After executing the JDA, BPA announced its plans for the Central Ferry Substation. The announced location was closer to the Kuhl Ridge WRA than Tucannon. This news prompted PSE and RES to focus development efforts on the WRAs, Oliphant Ridge and Kuhl Ridge, nearest the point of interconnection. This incremental work of securing leases and interconnection rights was again reflected in the WRA pricing at the time PSE purchased RES’ remaining interest in the LSRWEP. As per the contract agreements with RES, attached in **Appendix 2** and **Appendix 3**, purchase price information shown in **Table 2** for the four WRAs are as follows:

Table 2 – WRA Purchase Price Summary

	Oliphant Ridge	Tucannon	Kuhl Ridge	Dutch Flats	Total
JDA Purchase Price (Dec 08)					
Buyout Purchase Price (Aug 09)					
Totals					

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Project Allocations

Subsequent to PSE’s purchase of RES’ remaining interest in the LSRWEP, the PSE Resource Development Team made the decision to subdivide the WRAs and develop portions of the WRAs in sequence. Phase I, as currently proposed and highlighted in **Figure 1** above, consists of a northern sector in the Kuhl Ridge WRA and a southern sector in the Oliphant Ridge WRA. The current Phase I design places 66 2.3MW turbines in the northern sector, or 151.8MWs of capacity, and 83 2.3MW turbines in the southern sector, or 190.9MWs of capacity, for a total of 342.7MWs of total Phase I capacity.

The allocation methodology calls for extracting these capacities and the accompanying values out of each WRA and into Phase I. Multiplying total Phase I MWs by the average selling price of these MWs leads to a total basis of \$ [REDACTED], or [REDACTED]%, of the total purchase price. **Table 3** details the allocation methodology.

Table 3 – Phase I Allocation

Purchase Date	Resource Area	Purchase Price	WRA MWs	Phase 1 MWs	\$ / MW	Phase 1 Allocation (\$)	Phase 1 Allocation (%)
Dec, 2008	Oliphant Ridge	[REDACTED]	100	100.0	[REDACTED]	[REDACTED]	[REDACTED]
Aug, 2009	Oliphant Ridge	[REDACTED]	100	90.9	[REDACTED]	[REDACTED]	[REDACTED]
Aug, 2009	Kuhl Ridge	[REDACTED]	150	150.0	[REDACTED]	[REDACTED]	[REDACTED]
Dec, 2008	Tucannon	[REDACTED]	250		[REDACTED]	[REDACTED]	[REDACTED]
Aug, 2009	Tucannon	[REDACTED]	250		[REDACTED]	[REDACTED]	[REDACTED]
Dec, 2008	Kuhl Ridge	[REDACTED]	150	1.8	[REDACTED]	[REDACTED]	[REDACTED]
Dec, 2008	Dutch Flats	[REDACTED]	125		[REDACTED]	[REDACTED]	[REDACTED]
Aug, 2009	Dutch Flats	[REDACTED]	125		[REDACTED]	[REDACTED]	[REDACTED]
Totals			1,250	342.7			

The current development plan calls for further Phases in 2015, 2017, 2019, and 2021. The allocation percentages for these Phases were determined in the same manner as Phase I and are depicted in **Table 4**.

Table 4 – LSRWEP Allocations

Project Area	Projected MWs	LSRWEP Allocations (%)
Phase 1	342.7	[REDACTED]
Phase 2	157.3	[REDACTED]
Phase 3	167.0	[REDACTED]
Phase 4	167.0	[REDACTED]
Phase 5	416.0	[REDACTED]
Total	1,250	100.00%

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Schedule 1.1(a)
Description of Existing Projects

	Existing Projects			
	Oliphant Ridge (Map A attached hereto)	Tucannon (Map B attached hereto)	Kuhl Ridge (Map C attached hereto)	Dutch Flat (Map D attached hereto)
Acres	32,740	41,960	39,920	10,075
County(ies)	Garfield, Columbia	Columbia	Garfield	Garfield
Townships/Ranges Included	T11N/R38 - 39E T12N/R38 - 39E	T11N/R40 - 41E T12N/R39 - 41E	T11N/R41E T12N/R39 -42E T13N/R40 - 41E	T11N/R41-42E
Targeted Generating Capacity (MW)	200	500	300	250
Number of Landowners	25	42	42	26
No. of Leases Executed	22	31	16	0
No. of Anemometer Agreements Executed	8 ^a	5 ^b	39 ^c	24
Existing Met Masts	5	3	3	1
Decommissioned Met Masts	1	0	0	2 ^d

- a 8 of 8 executed anemometer agreements are with landowners who have also executed wind energy ground leases.
- b 5 of 5 executed anemometer agreements are with landowners who have also executed wind energy ground leases.
- c 17 of 39 executed anemometer agreements are with landowners who have also executed wind energy ground leases; in one instance the Grantors under two separate anemometer agreements entered into a single wind energy ground lease.
- d Decommissioned masts for Dutch Flat represent masts previously installed, owned and decommissioned by a third-party not affiliated with RES America Developments. RES Americas Developments purchased data from the third party for these 2 masts within the Dutch Flat Project area as well as from 5 decommissioned met masts located outside of and south of the Dutch Flat Project area.

Appendix 2

Lower Snake River
Purchase Price Allocation

<u>Assets</u>	<u>Oliphant Ridge</u>	<u>Tucannon</u>	<u>Kuhl Ridge</u>	<u>Dutch Flats</u>	<u>Total</u>
Real Property: Leases Easements					
Tangible Personal Property: Interconnection Studies, Other Studies					
Business Contracts: Various Interconnection, Transmission, Environmental & Site Agreements					
Reports & Data Under Wind Data License Agreement					
Project Permits					
Met Masts & Equipment					
Incidental Assets					
Total					

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Schedule per section 7.2(b) of the JDA

Appendix 3

**Lower Snake River
Purchase Price Allocation**

Assets	Olliphant Ridge	Tucannon	Kuhl Ridge	Dutch Flats	Total
Real Property: Leases Easements					
Tangible Personal Property: Met Masts & Equipment					
Business Contracts: Various Interconnection, Transmission, Environmental & Site Agreements					
Other Intangibles					
Total					

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Exhibit M

Development Plan Analysis

Exhibit M Development Plan Analysis**I. Legislation Supporting Renewable Development**

Washington voters approved Initiative-937 in November 2006 and effectively established a Renewable Portfolio Standard ("RPS") in Washington. The Energy Independence Act, RCW 19.825, codified the RPS and requires electric utilities with more than 25,000 customers to use qualifying renewable energy, such as wind, solar, geothermal, tidal, landfill gas and biomass, to serve at least 15 percent of electric load by 2020, with benchmarks in 2012 and 2016 to demonstrate progress. Specifically, utilities must supply:

- 3% of load from qualifying renewables by 2012;
- 9% of load from qualifying renewables by 2016; and
- 15% of load from qualifying renewables by 2020.

Utilities that fail to reach these milestones would be subject to a \$50/MWh penalty for each MWh the utility falls short of the targets. Recognizing that renewable generation may be more expensive than non-renewable alternatives at some point in the future, RCW 19.825 allows utilities that would exceed a 4% revenue requirement increase over non-renewable alternatives to opt-out of the renewable compliance program.

PSE is well positioned to meet the near term RPS target in 2012, but the Company must find additional renewable resources to meet the RPS targets in 2016 and 2020. The Lower Snake River Wind Project, Phase I (the "Project" or "Phase I") will enable PSE to progress towards meeting those targets. Figure 1 shows the contribution of PSE's existing and proposed near-term renewable resource additions toward meeting the state RPS requirements. Figure 1 includes resources from which Renewable Energy Credits ("RECs") are currently being sold.

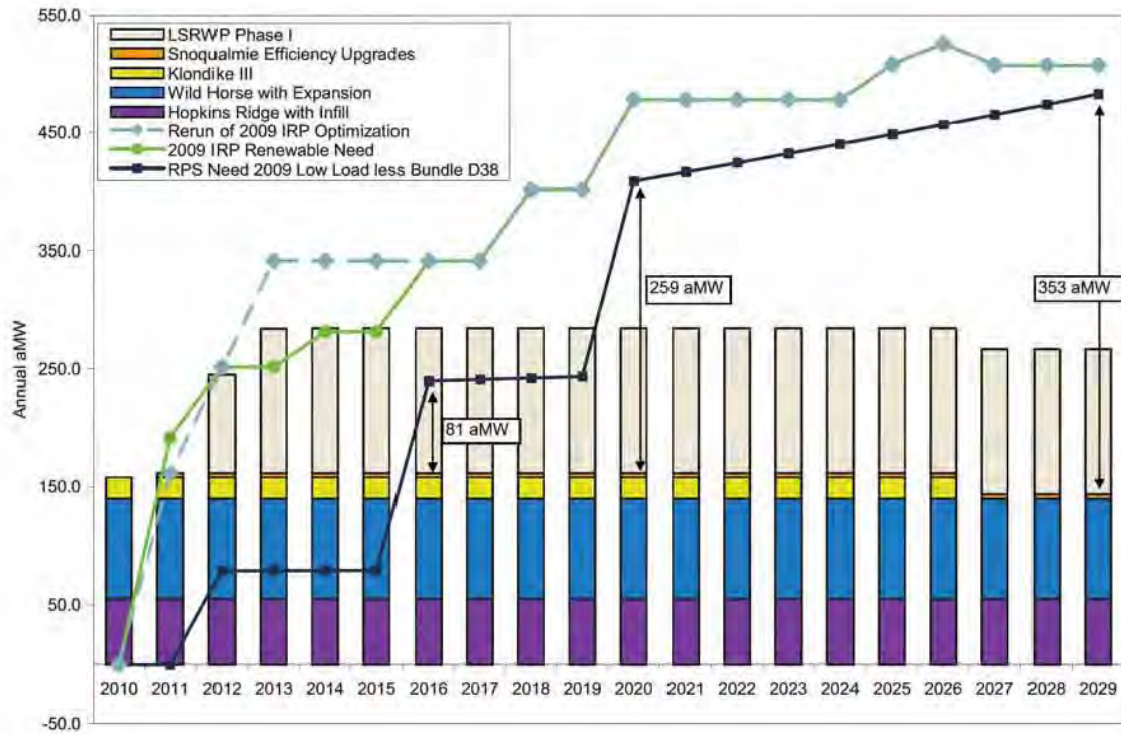


Figure 1. PSE Renewable Resource Contributions Toward Meeting PSE and RPS Targets

II. Lower Snake River Development Plan Analysis

The Company is planning to develop the Lower Snake River Wind Project (“LSRWP”) in phases as additional wind capacity is needed and economic. Therefore, a key decision during the development of each phase is to determine PSE’s renewable resource need and how much wind capacity to build. The following sections describe the quantitative and qualitative methodologies conducted by PSE to support its decision to build 342.7 MW for Phase I at this time.

A. Financial Analyses

PSE used three quantitative modeling approaches to identify the maximum amount of wind capacity that can be built economically by December 31, 2012, when current federal tax incentives expire. The table below presents a high-level overview of the modeling approaches employed. The following sections explain the analytic process and results for each modeling approach.

Table 1. Summary of Modeling Approaches

Modeling Approach	Recommended Wind Capacity Addition by 12/31/2012	Notes
1. 2009 IRP	300 MW	Assumptions made prior to 2008 financial meltdown
2. Discounted Cash Flow Model ¹	600 MW	Evaluates changes since the IRP, including: <ul style="list-style-type: none"> • Treasury Grant • Lower turbine costs • Extension of WA State sales tax exemption
3. Re-run of IRP Optimization ¹	600 MW	Evaluates changes since the IRP, including: <ul style="list-style-type: none"> • Treasury Grant • Lower turbine costs • Lower wind integration, BPA tariff
4. 2010 RFP PSM III Optimization Model ²	740 to 990 MW ²	2010 RFP phase II evaluation: <ul style="list-style-type: none"> • Treasury Grant • Five real renewable resource proposals

1. Presented to the EMC November 16th, 2009
2. PSM III optimization model ran five scenarios based on 2009 IRP methodology. In 4 out of 5 scenarios, PSM III selected 740 to 990 MW equivalent wind capacity, inclusive of the 1.2 REC multiplier. In 1 out of 5 scenarios, PSM III selected 130 MW equivalent wind capacity, inclusive of the 1.2 REC multiplier. This Low Growth scenario contains capital cost assumptions that are 15% lower than LSR Phase I.

1. First Modeling Approach: The 2009 IRP

PSE's 2009 IRP was published July 2009 and calls for PSE to develop or acquire 300 MW of wind resources in the near term to take advantage of the production tax credits ("PTCs"), which the American Recovery and Reinvestment Act ("ARRA") extended through December 31, 2012. Beyond the 2012 wind capacity additions, the IRP also identifies the need for a total of 700 MW of wind resources with additions in 2014, 2016, 2018, and 2020.

2. Market Place Changes After the 2009 IRP Encourage New Modeling of the Phase I Development Plan.

The underlying assumptions for the 2009 IRP were finalized in late 2008, with the exception of the PTC assumptions that were updated after the ARRA passed in 2009. Three material changes have occurred since 2008 that affect the optimal acquisition timing for renewable resources: i) PSE determined that the Treasury Grant created by the ARRA usually provides more value to ratepayers than electing the PTC, ii) Washington state legislators extended the sales tax exemption on renewable generating assets, which at the time of the IRP was set to expire by June 30, 2009, and iii) wind turbine generator costs, the largest single cost component of a wind project, decreased..

a) Treasury Department Guidance on Cash Grants Allowed by ARRA

The 2009 IRP modeled renewable resource development based on the availability of the Production Tax Credit ("PTC"). The PTC is a ten year tax credit that has been the primary federal incentive for wind development since 1992. PTCs are credited based on actual production and may only be claimed if the project owner has a tax appetite in the given year. The PTC can be carried back one year and carried forward 20 years should the taxpayer not have a current-year tax liability. Frequently, PTCs generated from PSE's existing owned wind projects exceed the Company's tax credit appetite. Since wind developers generally are unable to fully utilize PTCs from their projects, they often engage in tax-equity financings with partners who have the tax appetite for the PTCs. As PSE also faces these constraints, the 2009 IRP assumed tax-equity financing and structuring costs equal to about 14% of the gross benefit of the PTC.

A provision in the ARRA enables owners of wind energy projects to elect a cash grant from the US Department of the Treasury (the "Treasury Grant") in lieu of the PTC or an Investment Tax Credit ("ITC"). The Treasury Grant is equal to 30% of qualifying investment of a renewable project. To qualify for the Treasury Grant, construction of the project must begin before December 31, 2010, and the project must be placed in service no later than December 31, 2012. Many owners of renewable energy prefer the Treasury Grant because it is not dependent on future power generation or a company's tax liability for the given year. PSE's analysis of the Treasury Grant shows that due to PSE's limited tax credit appetite, the Treasury Grant, under PSE's projected conditions of capacity factor and capital cost, is more beneficial than PTCs in lowering project cost.

b) Washington State Renewable Generation Sales and Use Tax Exemption

In Washington State, sales tax does not apply to the sale of equipment used to generate electricity from renewable technologies including: fuel cells, wind, sun, biomass energy, tidal or wave energy, geothermal, anaerobic digestion or landfill gas. The tax exemption applies to labor and services related to the installation of the equipment, as well as to the sale of equipment and machinery. Eligible systems are those with a generating capacity of at least 1 kilowatt (kW).

In May 2009, Washington passed SB 6170, effective July 1, 2009, which extends the sales and use tax exemption (i.e. 100% exemption) to June 30, 2011 for systems generating electricity using the aforementioned renewable technologies. Purchasers of renewable technology may claim an exemption in the form of a remittance. From July 1, 2011 to June 30, 2013, the full sales tax exemption begins to sunset and renewable technology will receive an exemption of 75%. After June 30, 2013, the sales tax exemption expires. The extension of the sales tax exemption has the effect of favoring the early development or acquisition of renewable projects. This sales tax exemption was not incorporated into the 2009 IRP analyses and results.

c) Wind Turbine Generator Pricing

The global financial crisis of 2008 and 2009 had a stark impact on the wind development industry in the United States. Prior to the economic downturn, turbine prices increased rapidly and wind turbine manufacturing capacity was constrained to the extent that lead times for turbine supply reached two years. Financing for wind development was readily available and multiple tax equity financiers provided the necessary tax appetite to claim the PTCs generated from the projects. With the credit freeze in late 2008, tax equity and capital financing was dramatically reduced, which meant numerous development projects were either cancelled or postponed until funding became available from the Treasury Grant. During the run-up prior to the crisis, wind turbine manufacturing capacity increased significantly. WTG manufacturers found themselves with increased manufacturing capacity and declining sales, leading to a decrease in wind turbine pricing. In fact, from the time PSE submitted a request for proposals for WTGs to the time PSE selected Siemens as the WTG manufacturer for Phase I, the average WTG price among the bidders fell 12%. These lower prices were also not known and thus not reflected in the 2009 IRP.

3. Second Modeling Approach: Discounted Cash Flow Analysis

The second modeling approach PSE conducted was based on a simple discounted cash flow model ("DCF model"). The purpose of this analysis was to identify the maximum amount of wind PSE could build economically by December 31, 2012 to take advantage of available tax incentives, while minimizing the revenue requirement associated with building 1,000 MW of wind necessary for PSE to meet Washington's RPS in 2020 and

1,250 MW by 2022. To do this, PSE modeled a series of nine different wind capacity build schedules and used the Phase I all-in capital cost as a proxy for the cost of building all future wind. The capital cost was escalated for capacity additions beyond 2012. Two other cost components included in the DCF model were the Treasury Grant benefit captured before it expires December 31, 2012 and the RECs sales benefit during the years prior to 2016. This simple cash flow model did not include the plan-specific O&M or the revenues from power sales. If netted, these costs and benefits would likely favor the addition of more wind earlier.

The following table presents the different wind capacity build schedules used for the DCF model. Many of the build schedules accelerate the wind capacity additions to take advantage of the tax incentives and lower turbine pricing in the near term, and then echo the wind acquisition plan of the 2009 IRP in years 2018 and 2020.

Wind farms frequently reach commercial operation in the fourth quarter of a given year after a full year's worth of construction. However, PSE's models assume that resource additions start at the beginning of the year. Therefore, wind capacity additions that achieve commercial operation at the end of the year are represented as being placed in service January 1st of the following year. In the table below, for example, the wind build schedule titled "Phase 400 MW development – then IRP" shows wind capacity additions of 200 MW in the DCF model occurring in 2012 and 2013. This means that wind capacity additions actually come on-line in the fourth quarter of 2011 and 2012.

Table 2. Wind Capacity Build Schedule for DCF Model

Annual MW Development	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
LSR 7-28-09 Development Plan	0	250	250	0	0	250	0	0	0	250
Accelerated 500 Development, then IRP	0	500	0	0	0	100	0	200	0	200
IRP Development Plan	0	300	0	100	0	200	0	200	0	200
Phase 400 MW Development - then IRP	0	200	200	0	0	200	0	200	0	200
Phase 500 in 2 yrs - then IRP	0	250	250	0	0	100	0	200	0	200
Phase 600 MW Development - then IRP	0	300	300	0	0	0	0	200	0	200
Phase 800 MW Development - then IRP	0	400	400	0	0	0	0	0	0	200
Phase 1000 MW Development - then IRP	0	500	500	0	0	0	0	0	0	0
Phase 1200 MW Development - then IRP	0	600	600	0	0	0	0	0	0	0

After modeling the cash flows described above, PSE compared the Net Present Value (“NPV”) revenue requirement from each of the nine wind build schedules. The table below presents the analytic conclusions from the DCF model and was presented to the Energy Management Committee on November 16, 2009:

Table 3. DCF Model Results

Plan No.	DCF Model Results	NPV Revenue Requirement	Incremental Cost from Lowest Cost Wind Build Scenario	Rank, Lowest Cost to Highest
1	LSR 7-28-09 Development Plan	\$2,003,366	\$42,944	5
2	Accelerated 500 Development - then IRP	\$2,041,739	\$81,318	7
3	IRP Development Plan	\$2,064,358	\$103,936	8
4	Phase 400 MW Development - then IRP	\$2,000,299	\$39,878	4
5	Phase 500 in 2 yrs - then IRP	\$1,980,360	\$19,939	3
6	Phase 600 MW Development - then IRP	\$1,960,422	\$0	1
7	Phase 800 MW Development - then IRP	\$1,964,173	\$3,752	2
8	Phase 1000 MW Development - then IRP	\$2,006,791	\$46,369	6
9	Phase 1200 MW Development - then IRP	\$2,083,704	\$123,282	9

This table presents each of the wind capacity build schedules and the total NPV revenue requirement associated with each schedule, presented in thousand of dollars. The column to the right of the total NPV revenue requirement is the incremental revenue requirement from the wind capacity build schedule that has the lowest NPV revenue requirement. The last column ranks the different wind schedules from lowest to highest. Plan 6, “Phase 600 MW Development - then IRP” has the lowest NPV revenue requirement and is then closely followed by Plan 7, “Phase 800 MW Development – then IRP.”

The results of the DCF model highlight two key points: 1) building wind early in advance of PSE’s RPS need to capture the available economic benefits, outweighs the opportunity costs of letting those economic benefits lapse, and 2) the most economic wind capacity build schedule adds a total 600 MW of wind to PSE’s resource portfolio by the end of the year 2011 and 2012.

4. Third Modeling Approach: Re-run of the 2009 IRP

To further refine the lowest cost development schedule of the LSRWP, the IRP models were re-run with updated WTG capital cost assumptions and available tax incentives. For this third modeling approach, PSE used the PSM II model, a financial and risk model, to re-run the 2009 IRP. For this analysis, two IRP scenarios were used – 2009 Trends and

Business As Usual (“BAU”). The 2009 Trends was the IRP base case scenario used to identify the recommended 20 year resource strategy for PSE.

The 2009 Trends originally used the following assumptions: PTCs available through 2012, low load growth, low gas prices, low resource costs, and a CO₂ charge for carbon emissions. The BAU scenario used the same PTC, load and resource costs assumptions as 2009 Trends, but it assumed there is no CO₂ charge for carbon emissions and gas prices remain lower than the 2009 Trends for the near and long term. BAU was used in this third modeling approach because all other IRP scenarios assume higher gas prices and carbon tax rates, which tend to favor more renewable development as wind does not use gas to generate power and does not emit CO₂. The BAU scenario is more likely to favor less wind as gas prices and CO₂ costs are low. For this analysis, both 2009 Trends and BAU assumptions for the PTC were updated to use the Treasury Grant and low resource costs were updated to use the capital cost assumptions to build Phase I.

A series of eight wind capacity build schedules totaling 1,000 MW by 2020 were placed through PSM II 2009 Trends and BAU to find the maximum amount of wind capacity that can be built economically while minimizing the total resource portfolio cost for the next 20 years. The following table is the wind capacity builds for the eight schedules:

Table 4. PSM II Wind Build Schedule

Plan no.	Wind Capacity Build Schedule	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	LSR 7-28-09 Development Plan	0	0	250	250	0	0	250	0	0	0	250	0	0
2	Accelerated 500 MW - then IRP	0	0	500	0	0	0	100	0	200	0	200	0	0
3	2009 IRP Resource Plan	0	100	200	0	100	0	200	0	200	0	200	0	0
4	Phase 400 MW - then IRP	0	0	200	200	0	0	200	0	200	0	200	0	0
5	Phase 500 MW - then IRP	0	0	250	250	0	0	100	0	200	0	200	0	0
6	Phase 600 MW - then IRP	0	0	300	300	0	0	0	0	200	0	200	0	0
7	2009 Trends	0	100	200	0	0	0	100	0	0	0	600	0	0
8	No Early Wind	0	0	0	0	0	0	400	0	0	0	600	0	0

Table 5 presents the results for both the 2009 Trends and the BAU IRP scenarios:

Table 5. PSM II Build Schedule Ranking

Plan no.	Wind Capacity Build Schedule	2009 Trends			Business As Usual		
		NPV Portfolio Cost	Incremental NPV Portfolio Cost from Lowest Cost Scenario	Rank	NPV Portfolio Cost	Incremental NPV Portfolio Cost from Lowest Cost Scenario	Rank
1	LSR 7-28-09 Development Plan	\$19,454,371	\$42,214	4	\$13,053,444	\$46,077	4
2	Accelerated 500 MW - then IRP	\$19,453,221	\$41,063	3	\$13,050,692	\$43,324	3
3	2009 IRP Resource Plan	\$19,533,805	\$121,648	7	\$13,143,441	\$136,074	7
4	Phase 400 MW - then IRP	\$19,478,149	\$65,991	5	\$13,090,288	\$82,921	5
5	Phase 500 MW - then IRP	\$19,445,152	\$32,995	2	\$13,048,828	\$41,461	2
6	Phase 600 MW - then IRP	\$19,412,157	\$0	1	\$13,007,367	\$0	1
7	2009 Trends	\$19,479,380	\$67,222	6	\$13,119,821	\$112,453	6
8	No Early Wind	\$19,565,828	\$153,670	8	\$13,237,954	\$230,587	8

Table 5 identifies the NPV portfolio cost for each wind capacity build schedule in each scenario and ranks each schedule from lowest to highest cost in each scenario. Similar to the second modeling approach, both 2009 Trends and BAU IRP scenarios conclude that building 600 MW of wind by December 31, 2012 minimizes portfolio cost.

5. A Fourth Modeling Approach

While not part of the initial analysis to define the best development plan for Phase I, the Comparative Analysis results provided in Appendix N essentially provide a fourth quantitative model to identify the amount of wind that would be cost effective in the 2012 time period. PSE's Portfolio Screening Model III, used to conduct its Request for Proposals (RFP) Phase II analysis, indicates that it is cost effective to acquire even more renewable generation earlier than needed. This modeling approach differs from those above because the projects tested are real proposals from the 2010 RFP and are in various stages of development. The five future scenarios discussed in the Comparative Analysis show an optimal REC potential of 346,000 RECs to 2,954,000 RECs or 132 MW to 987 MW of equivalent wind assuming a standardized 30% capacity factor.

Proposed Project	Scenario Optimizations				
	Trends 2010	BAU	GW	LG	LG With Base Capital Costs
LSR Phase I	X	X	X		X
	X	X	X	X	X
	X	X	X		X
			X		
	X		X		
RECs from Wind Acquisition	2,283,884	1,954,858	2,593,988	346,265	1,954,858
Equivalent MW Wind 30% CF	869	744	987	132	744

A high level summary of the assumptions for each scenario is contained in the following table. Load is PSE's retail demand and affects the level of RECs needed to meet the RPS standards. Gas prices are a primary driver of market price for power. The higher the power market price, the more wind will be cost effective. The CO₂ cost is also a driver of power prices. Capital cost is the assumed pricing of capital investment for new plants. The scenario of Low Gas with Base Capital Costs was run to check optimal portfolio under conditions of low demand and low power market prices, but assuming that capital costs for wind turbines do not drop further than current prices.

RFP 2010	Load Growth	Natural Gas Prices	CO ₂ Prices	Resource Capital Costs
Trend 2010	MED	MED	MED	MED
Green World (GW)	LOW	HIGH	HIGH	HIGH
Business as Usual (BAU)	MED	MED	LOW	MED
Low Growth (LG)	LOW	LOW	LOW	LOW
LG + Trends 2010 Capital Cost	LOW	LOW	LOW	MED

6. Quantitative Conclusion of Modeling Approaches

Both the second and third modeling approach results show that the lowest cost wind resource portfolio are achieved by building a total of 600 MW of wind by December 31, 2012. In other words, it is economically beneficial for PSE to accelerate wind resource additions and acquire more than indicated in the 2009 IRP due to lower wind turbine costs

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and more favorable tax incentives, both of which came to light after the 2009 IRP assumptions were finalized.

The 2010 RFP Phase II analysis indicates the optimal level of wind resource acquisitions ranges from 132 MW to 987 MW. In four out of five scenarios, this optimal level of RECs is at least 744 MW, which is greater than 600 MW found in the second and third modeling approach. A key reason why the optimal level is higher than 600 MW is because the five projects listed are the lowest cost of over 30 offers that were evaluated in the 2010 RFP. The forecast costs for these projects are lower than the generic costs assumed in the second and third modeling approaches.

B. Qualitative Review: Limiting Factors

Even though these analyses show it is cost effective to acquire more renewable generation than required to meet the RPS standard in the early years, various qualitative factors not reflected in the quantitative analysis suggest the Company should not at this time acquire the maximum cost-effective amount of renewable generation.

The qualitative factors that drive PSE's decision to build less in Phase I are: i) the Treasury Grant deadline in 2010, ii) the completed permitting, iii) status of engineering work, iv) the uncertainty surrounding changes in tax and energy legislation and v) the anticipation that technology will improve over time for wind turbines and other renewable technologies.

1. Treasury Grant Deadline

After Congress passed the ARRA, the Department of Treasury released guidance on how renewable energy developers can qualify for the Treasury Grant. The guidance established a safe harbor provision whereby developers must begin construction on a project by 2010 and spend a 5% minimum of total eligible capital investment by December 31, 2010¹. Milestone payments made on wind turbines prior to the developer taking title, do not, by themselves, count towards meeting the safe harbor provision. To ensure that PSE qualifies for the Treasury Grant, the Company will not rely on wind turbine payments to meet the 5% requirement. Instead, PSE will ensure that other

¹ See Exhibit S.

qualifying investment is spent by December 31, 2010. This has the effect of limiting Phase I capacity to be sure that PSE qualifies for the Treasury Grant.

2. Permitting

As of December 28, 2009, PSE has a non-appealable conditional use permit ("CUP") to construct and operate a wind project in Garfield County. PSE submitted a CUP application in Columbia County on December 14, 2009 and expects a determination on the application in the second quarter 2010. Since PSE does not yet have a permit in Columbia County, PSE has limited its Phase I wind development and construction efforts to Garfield County. PSE's consultants believe that 149 Siemens 2.3 MW wind turbines will optimize the wind resource within Garfield County and still meet the Treasury Grant deadlines.

3. Engineering

Like permitting, PSE has focused development efforts on engineering only the earliest phases of LSRWP. As a result, engineering work such as wind turbine location and layout design, geotechnical investigation, turbine foundation design and road design has not been performed on Phases IV and V, which are located in Garfield County. The earliest PSE could complete the issue for construction ("IFC") drawings for these two phases is mid - 2011. While it would still be possible to construct a project by year-end 2012, PSE would not fulfill the 2010 Treasury Grant 5% safe harbor provision for work completed in the Phase IV and V project area. Therefore, as Phase I is fully engineered, ready for construction and will meet the Treasury Grant safe harbor provision for 2010, Phase I capacity is limited to 342.7 MW.

4. Uncertainty of Legislation

The quantitative analyses above were run assuming that Federal renewable incentives and Washington State Sales Tax exemption will expire with the sunset of existing legislation. If these incentives were to be extended in their current form or at a reduced level, this would favor postponing a portion of renewable acquisition until it is needed to meet the Washington State Renewable Portfolio Standard (RPS). Future changes in the law related to renewable standards and federal incentives are difficult to predict. While the desire for renewable generation is likely to continue, future legislation may not

continue to fund tax incentives that stimulate construction of renewable resources. The impact of future legislation is equally difficult to integrate into a quantitative analysis. For example, if the percentage targets for renewable portfolio standards increase, then a more aggressive program to acquire renewable generation early would benefit PSE customers by buying lower priced turbines and capturing federal incentives. If the RPS standards decrease, then a more cautious renewable acquisition program would be the right choice. The proposed Phase I capacity of 342.7 MW and the 1.2 REC multiplier combine to provide about 411 out of the 600 MW calculated to be cost effective.

5. Technological Development

Technology development is another item to be considered in addition to the uncertainty surrounding RPS standard and incentive legislation. Through time, technology tends to improve the quality and efficiency of generation plants. While this is difficult to quantify, all other things being equal or held constant, one conclusion is that it would be better to diversify renewable investments through time.

III. Conclusion

Determining how much renewable generation should be acquired to both capture low cost and to hedge against unknown conditions in the future is based upon judgment. PSE's judgment is informed by its experience in wind development, its internal quantitative analysis, market intelligence gained from RFP offers, third party consultants' views of future turbine pricing, and PSE's operating experience. Even though the quantitative analysis supports 600 MW, and the RFP analysis supports adding over 744 MW of renewable resources by December 2012, all work completed on Phase I, including the engineering, permitting, wind resource assessment work and selection of the Siemens SWT – 2.3 - 101 machine, indicate that the appropriate size of Phase I that PSE can construct given the project boundaries and federal tax incentive timeline is 342.7 MW.

Exhibit N

Comparative Analysis

Exhibit N Comparative Analysis of Renewable Alternatives

The 2009 Integrated Resource Plan (“IRP”) and subsequent analyses, as explained in Exhibit M, describe PSE’s near-term renewable resource need. As a regulated utility in Washington State, PSE must follow certain procedures to acquire resources to fill its need. Specifically, the Washington Administrative Code (“WAC”) 480-107-001 states that a utility has the following three methods by which it may acquire resources: 1) through a competitive bidding process, which PSE refers to as the Request for Proposal (“RFP”) process, 2) construction of additional resources by the utility and 3) through negotiating purchased power agreements (“PPA”)¹.

1. RENEWABLE DEVELOPMENT STRATEGY PROVED BENEFICIAL TO CUSTOMERS

PSE initiated a strategy in 2007 to manage the cost of acquiring new renewable generation resources by taking positions in wind projects earlier in the development process, thereby reducing developer premiums and managing costs for customers. By entering the development chain early, PSE intended to realize significant capital cost savings through the remaining phases of development, procurement, construction and commissioning.

PSE originally planned to bring the recommendation to construct and operate the Lower Snake River Wind Project, Phase I (the “Project” or “ LSR Phase I”) to the Board of Directors in January 2010. However, PSE staff proposed and the EMC concurred on January 14, 2010 that it would be prudent to postpone the January recommendation to the May 2010 Board of Directors meeting. This delay would give PSE time to compare Phase I against the renewable resource proposals received during the 2010 Request For Proposals (“2010 RFP”).

Comparing Phase I with the other wind proposals received in response to the RFP shows that the Project is the lowest cost resource out of the 31 wind offers evaluated when execution risk is considered, and is the best positioned resource among the four most

¹ WAC 480-107-001 states: “The rules in this chapter require utilities to solicit bids, rank project proposals, and identify any bidders that meet the minimum selection criteria. The rules in this chapter do not establish the sole procedures utilities must use to acquire new resources. Utilities may construct electric resources, operate conservation programs, purchase power through negotiated contracts, or take other action to satisfy their public service obligations.”

economic wind proposals to start construction and capture the federal tax incentives available to wind projects. This document describes the comparative analysis PSE conducted in the RFP process that supports these findings.

2. 2010 RFP

As established by WAC rule, PSE issued its 2010 RFP because the 2009 IRP identified that the Company has a need for generating resources as a result of expiring contracts, plant retirements and the Washington State voter-approved renewable portfolio standard. The 2010 RFP was issued to the public on January 12, 2010, with proposals due back on March 2, 2010.

In response to the 2010 RFP, PSE received 33 unique renewable resource proposals from 29 respondents. Of the 33 unique proposals, some contained multiple contractual offers, such as power purchase agreement ("PPA"), asset ownership, and a combination of a PPA and partial ownership. Table 1 summarizes the number of proposals, offers, and total MW capacity of renewable resources PSE was offered in the RFP.

Table 1. Response to PSE's 2010 RFP

Renewable Resource	Proposals	Offers	MW
Biomass	9	10	590
Renewable Energy Credits	2	6	n/a
Solar	1	1	10
Wind	21	31	3,776
Total	33	48	4,376

For a list of all proposals submitted in the 2010 RFP, please see Table 12 on page N-29.

The renewable resource proposals are located across the Northwest region, including Washington, Oregon, Idaho, Montana and Canada. The following table identifies how many proposals are located in each state and province by generation type.

Table 2. Response to PSE's 2010 RFP

Proposals by Location	WA	OR	ID	MT	BC	Proposals by type
Biomass	5	3	0	1	0	9
Renewable Energy Credits	0	0	2	0	0	2
Solar	0	1	0	0	0	1
Wind	9	3	0	8	1	21
Total	14	7	2	9	1	33

These tables do not include two wind projects that were not received in response to the formal RFP: PSE's Lower Snake River Wind Project Phase I ("LSR Phase I"), and [REDACTED]. LSR Phase I was not included in the RFP evaluation because it is PSE's self-build project. [REDACTED] is a [REDACTED] MW wind project under development by [REDACTED], located in [REDACTED], Oregon and projected to be online by December 31, 2011. [REDACTED] submitted a term sheet to PSE on March 30, 2010 and provided an FTP site with additional project data on April 8, 2010. As PSE has a public service obligation to review all proposals that it receives, PSE evaluated it as if it were submitted in the RFP. However, given the timing of [REDACTED] submission, not all qualitative review and analysis, such as a third-party review of the wind resource, was completed. For comparative analysis purposes, both LSR Phase I and [REDACTED] are included in the RFP documentation provided in this exhibit.

A. 2010 RFP PROCESS

Evaluation of the proposals is conducted in two phases. The goal of the two-phase approach is to identify the lowest reasonable cost, lowest risk projects that best fulfill the RFP evaluation criteria. As outlined in the RFP document, a favorable resource is one that:

- 1) Is compatible with PSE's resource need;
- 2) Minimizes cost;

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- 3) Minimizes risk,
- 4) Provides additional public benefits; and
- 5) Supports PSE's strategic and financial considerations.

During Phase I of the RFP, PSE screens each proposal for fatal flaws or high risks based on quantitative and qualitative attributes associated with each bid. PSE reviews all aspects of a proposal, including: price, development and construction status, commercial terms, environmental impacts, permitting issues, real estate, technical considerations, operating characteristics, transmission and interconnection, community impacts and project-specific economic analysis. Phase I of the RFP is designed to screen out proposals with high costs, unacceptable risks, or feasibility constraints. At the end of the screening, PSE identifies a "Candidate Short List" of proposals by fuel source that survive the screening analysis and warrant further evaluation in Phase II of the RFP.

In Phase II of the RFP, PSE performs a more extensive due diligence review of the "Candidate Short List" proposals. Due diligence activities include, but are not limited to, further inquiry via data requests to bidders and specific project site visits, if warranted. Quantitatively, PSE runs each project through PSM III, which is a linear program model designed to evaluate the "Candidate Short List" projects and identify the optimal portfolio of resources that minimized portfolio costs within economic scenarios that model a variety of future unknown situations. At the end of Phase II, PSE identifies a "Final Short List" of projects that provide the best combination of qualitative and quantitative attributes that together minimize risk and cost. Once a Final Short List is identified, PSE contacts the bidders and seeks to acquire the resources by reaching definitive agreements through negotiations and additional due diligence. Projects that have commercial promise despite a critical flaw are placed on a Continuing Investigation List. PSE reserves the right to pursue definitive agreements with projects on the Continuing Investigation List should the critical flaw(s) be resolved and the project continues to align with PSE's needs and priorities. PSE does not pursue acquisition discussions with developers of projects that are not selected for either list.

The following process flow diagram describes the process in more detail:

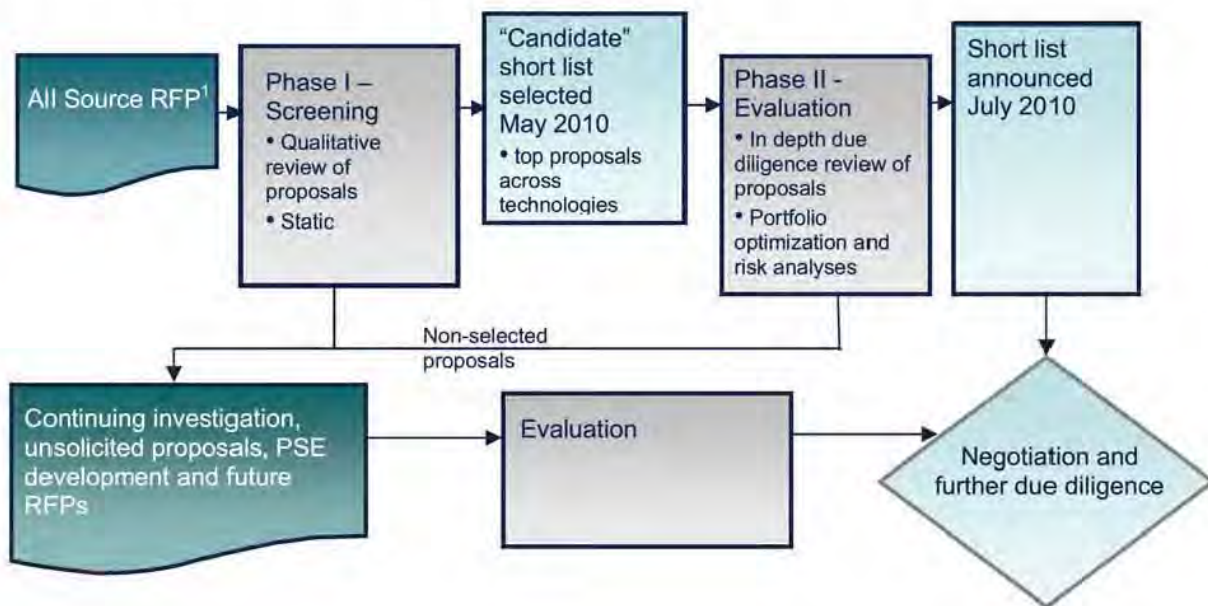


Figure 1. 2010 RFP Process

As mentioned previously, PSE postponed the recommendation on LSR Phase I from January 2010 to the May 5, 2010 Board of Directors meeting so that PSE could compare Phase I with the renewable resource offers received in the 2010 RFP. The volume of renewable resource proposals received in the 2010 RFP and the short time frame by which most analyses had to be completed required PSE to modify the RFP timing and schedule identified in the process flow chart. Consequently, this comparative analysis required that PSE complete both RFP Phase I and Phase II activities for the renewable resources by April 16, 2010.

The following sections explain in detail the quantitative and qualitative analyses PSE staff completed for renewable proposals during RFP Phases I and II. The RFP analyses conclude that LSR Phase I is the lowest reasonable cost, lowest risk renewable resource available to acquire for PSE's ratepayers.

A. 2010 RFP Phase I

1. Quantitative Evaluation

PSE used its Portfolio Screening Model ("PSM I") for the 2010 RFP Phase I renewable resources quantitative screening. PSM I is based on the 2009 IRP modeling methodology that identifies a 20-year projected portfolio of generating resources PSE needs to acquire to meet future load, capacity and REC requirements. PSM I forecasts an updated 2010 portfolio cost based on the recommended generic resource acquisitions. The portfolio cost is based on a series of cost projections, including but not limited to capital cost of resources, gas prices, market price for power purchase and sales, market price for REC sales, transmission cost, operation and maintenance costs and available tax incentives. These cost projections represent PSE's forecast of what it would cost to acquire typical, or "generic", resources to meet the Company's resource need. PSM I simulates the impact on portfolio economics of replacing a "generic" resource with a specific proposal from the 2010 RFP.

PSM I calculates three metrics that PSE uses to determine economic viability of individual proposals:

- **Levelized Cost** is calculated by taking the specific resource's net present value revenue requirement over the 20-year analytic period with end effects, divided by the net present value generation. The levelized cost is measured on a dollar per megawatt-hour ("MWh") basis and represents what each MWh costs over the life of the project.
- **Portfolio Benefit** is the difference in net present value portfolio revenue requirement with a proposed project compared to the net present value portfolio revenue requirement of the generic portfolio strategy. A positive Portfolio Benefit means that the proposed project yields lower cost to the portfolio than a comparable "generic" resource. A negative Portfolio Benefit indicates the proposed resource is more expensive than a generic resource.
- **Portfolio Benefit Ratio** ("Benefit Ratio") is the Portfolio Benefit divided by the present value of the proposed project revenue requirement. The Portfolio Benefit

Ratio allows projects of different capacities to be evaluated by removing bias for size. In other words, a proposed resource with a large capacity will typically have a large impact on the Portfolio Benefit metric. Similarly, a proposed resource with a small capacity will typically have a small impact on Portfolio Benefit. By dividing the Portfolio Benefit by the proposed project's net preset value revenue requirement, the size impact of a particular project is mitigated.

Each metric provides a slightly different perspective on the economic benefits associated with each proposal and all three metrics should be taken into account when comparing resources against each other.

Tables 3 through 6 present the results of the 2010 RFP Phase I quantitative evaluation by resource type and are sorted in ascending order by the Portfolio Benefit Ratio. The quality of the data analyses below rests on the quality of the data PSE received in each proposal. In many cases, PSE had to rely on assumptions to provide a complete quantitative analysis. The accuracy of these costs, therefore, is dependent on both the quality and quantity of data provided by the bidders and the assumptions PSE had to make when bidders omitted data. PSE does not have a quantitative method by which it can reflect data accuracy and quality in its financial results. As almost all projects are in various stages of development, it is highly likely that these quantitative results will change and become less favorable over time. It is in a bidder's best interest to present their proposal in a favorable light in hopes of reaching commercial negotiation for their proposal. PSE has experienced numerous times through the RFP process and other transactions that initial pricing increased over the course of the negotiation and acquisition process.

Table 3. Quantitative 2010 RFP Phase I Results for Biomass Proposals

Biomass							
Project	State	Type	Size (MW)	NCF Analyzed	Benefit Ratio	Portfolio Benefit (\$000)	Levelized \$/MWh
	WA	PPA			0.22	4,195	
	WA	PPA			0.13	19,248	
	OR	PPA			0.11	19,732	
	OR	PPA			0.09	16,010	
	WA	PPA			0.05	20,237	
	OR	PPA			0.01	3,239	
	MT	Own			(0.15)	(14,592)	
	WA	PPA					
	TBD	TBD					

Biomass proposals tended to evaluate favorably in PSE's quantitative models because these projects meet PSE's REC and capacity needs. However, the proposals PSE received in the 2010 RFP are in early stages of development and contain significant development and fuel-source risk. Fuel-source risk is relevant because fuel sources must be secured through private party long-term contracts and fluctuate based on certain volatile markets (wood products and diesel prices). Additional uncertainty exists because there is not yet a long-term market for biomass fuel, meaning PSE cannot reliably assume that the fuel source supply will be readily available through the life of a biomass project.

Two proposals could not be evaluated quantitatively due to insufficient data provided in the proposals.

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Table 4. Quantitative 2010 RFP Phase I Results for Wind Proposals

Wind							
Project	State	Type	Size (MW)	NCF Analyzed	Benefit Ratio	Portfolio Benefit (\$000)	Levelized \$/MWh
[REDACTED]	WA	Own	[REDACTED]	[REDACTED]	0.14	28,314	[REDACTED]
	OR	PPA	[REDACTED]	[REDACTED]	0.14	35,488	[REDACTED]
LSRWP, Phase 1 - PSE Self-Build	WA	Own	342.7	29.7%	0.09	68,773	104.66
[REDACTED]	WA	Own	[REDACTED]	[REDACTED]	0.05	18,556	[REDACTED]
	WA	PPA	[REDACTED]	[REDACTED]	0.01	3,161	[REDACTED]
	WA	Own	[REDACTED]	[REDACTED]	0.01	4,394	[REDACTED]
	WA	Own	[REDACTED]	[REDACTED]	0.00	333	[REDACTED]
	OR	PPA	[REDACTED]	[REDACTED]	(0.03)	(8,698)	[REDACTED]
	OR	Own	[REDACTED]	[REDACTED]	(0.04)	(7,066)	[REDACTED]
	WA	PPA	[REDACTED]	[REDACTED]	(0.06)	(5,171)	[REDACTED]
	MT	Dev	[REDACTED]	[REDACTED]	(0.06)	(11,085)	[REDACTED]
	OR	PPA	[REDACTED]	[REDACTED]	(0.11)	(92,672)	[REDACTED]
	WA	PPA	[REDACTED]	[REDACTED]	(0.12)	(20,292)	[REDACTED]
	MT	PPA	[REDACTED]	[REDACTED]	(0.12)	(71,399)	[REDACTED]
	WA	PPA	[REDACTED]	[REDACTED]	(0.14)	(34,884)	[REDACTED]
	WA	PPA	[REDACTED]	[REDACTED]	(0.16)	(40,911)	[REDACTED]
	MT	PPA	[REDACTED]	[REDACTED]	(0.16)	(92,832)	[REDACTED]
	MT	Own	[REDACTED]	[REDACTED]	(0.19)	(14,238)	[REDACTED]
	MT	PPA	[REDACTED]	[REDACTED]	(0.20)	(59,813)	[REDACTED]
	MT	PPA	[REDACTED]	[REDACTED]	(0.20)	(60,793)	[REDACTED]
	MT	PPA	[REDACTED]	[REDACTED]	(0.20)	(51,137)	[REDACTED]
	MT	PPA	[REDACTED]	[REDACTED]	(0.22)	(84,357)	[REDACTED]
	WA	PPA	[REDACTED]	[REDACTED]	(0.25)	(27,915)	[REDACTED]
	MT	Own	[REDACTED]	[REDACTED]	(0.30)	(20,470)	[REDACTED]
WA	PPA	[REDACTED]	[REDACTED]	(0.31)	(7,156)	[REDACTED]	
WA	PPA	[REDACTED]	[REDACTED]	(0.32)	(44,809)	[REDACTED]	
MT	Wind	[REDACTED]	[REDACTED]				
BC	PPA	[REDACTED]	[REDACTED]				
WA	Wind	[REDACTED]	[REDACTED]				

The wind proposals listed above represent the full spectrum of development, construction and commercially operating projects. Of the 21 wind proposals received, only two are operating. Therefore, the uncertainty surrounding these quantitative results varies. In the cases of [REDACTED] and [REDACTED] the data provided was so insufficient that PSE could not quantitatively analyze these projects. The [REDACTED] was not analyzed because it interconnects into the MISO balancing authority. LSR Phase I has one of the lowest price risks among the development renewable resource proposals, as PSE will

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sign the Siemens Turbine Supply Agreement (“TSA”), the Siemens Service and Maintenance Agreement (“SMA”), the RES Development Balance of Plant Agreement (“BOP”) and the BPA Large Generator Interconnection Agreement (“LGIA”) within days after May 5, 2010, if the Board of Directors approve Phase I construction.

Soon after PSE received the 2010 RFP proposals on March 2, 2010, the Company asked its wind resource consultant to perform a review of the development wind resource proposals that initially appeared most promising from a quantitative perspective. This third-party review of the proposed wind resources is an important part of the due diligence phase because the quality of wind resource reports provided with the wind proposals vary significantly. DNV-GEC’s review of the proposals allowed PSE to evaluate all wind resources based on a common set of assumptions. DNV-GEC reviewed 12 wind proposals and recommended revised net capacity factors for each project². PSE used DNV-GEC’s revised net capacity factors in the economic analysis of the wind projects evaluated. Also included in their report is an assessment of the:

- 1) Quality of the wind resource data and the third-party wind resource analysis provided;
- 2) Technology risk of the wind turbine selected for the project;
- 3) Turbine suitability risk for the site;
- 4) Proposed turbine layout on the project lands;
- 5) Energy resource and assumptions made in the evaluation of the resource; and
- 6) Uncertainty analysis that discusses the possible dispersion from the P50 net capacity factor, which is determined by the quality of the long-term wind reference identified for the project.

² DNV-GEC did not have a chance to evaluate [REDACTED] because [REDACTED] did not make this available to PSE until after early April, 2010. PSE will have DNV-GEC review the [REDACTED] wind resource and provide a similar evaluation in May 2010.

Table 5. Quantitative 2010 RFP Phase I Results for Renewable Energy Credit Proposals

Renewable Energy Credits							
Project	State	Type	Annual RECs	NCF Analyzed	Benefit Ratio	Portfolio Benefit (\$000)	Levelized \$/MWh
	ID	PPA		N/A	2.26	14,224	N/A
	ID	PPA		N/A	(0.46)	(1,789)	N/A
	ID	PPA		N/A	(1.73)	(2,687)	N/A
	ID	PPA		N/A	(1.78)	(5,154)	N/A
	ID	PPA		N/A	(4.03)	(12,408)	N/A

For the first time, PSE included a request for Renewable Energy Credit ("REC") contracts in the Company's 2010 RFP. PSE received two REC proposals with a total of five offers. The [REDACTED] offer is from a wind developer in Idaho that secured a counterparty to buy the power generated from the wind farm and is now seeking to sell the unbundled RECs. The [REDACTED] offers come from a REC marketer that has a portfolio of existing and yet-to-be constructed renewable projects, including the [REDACTED] project. Typically, the longer the REC contract term, the higher the benefit to PSE as it will help fulfill PSE's REC need.

REC contracts are limited in number because participation in the REC market is voluntary. As there is no national renewable portfolio standard ("RPS") and all state-level RPS's are different, the Pacific Northwest voluntary REC market is illiquid. Without a firm understanding of the commercial and credit terms proposed, PSE generally views REC contracts more risky than typical PPA contracts because in the event that the counterparty for the purchased power should default, the integrity of PSE's REC contract could be impacted.

Table 6. Quantitative 2010 RFP Phase I Results for Renewable the Solar Proposal

Solar							
Project	State	Type	Size (MW)	NCF Analyzed	Benefit Ratio	Portfolio Benefit (\$000)	Levelized \$/MWh
	OR	PPA			(0.43)	(16,306)	

PSE only received one proposal for a solar project, indicating that the solar industry in the Pacific Northwest is in the early stages of development as well. This proposal for a [REDACTED] MW solar farm is considered a large facility for the Pacific Northwest region. Given the poor

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economic performance of this project compared to the other renewable resources received, PSE did not select it for further evaluation in the 2010 RFP Phase II.

2. Qualitative Evaluation

RFP Phase I quantitative results are conditioned with an analysis of execution risk from a qualitative evaluation of the proposals. Of the 33 renewable resource proposals received in the 2010 RFP and the two projects analyzed outside the formal RFP process, only three projects are in commercial operation. Therefore, it is important to conduct due diligence reviews of each proposal to gain a more comprehensive understanding of executability risks and price risks.

For the renewable resource due diligence conducted in 2010 RFP Phase I, PSE established weekly RFP Working Group meetings wherein each evaluation team gathered to discuss the qualitative fatal flaws, risks and strengths associated with each proposal. The RFP Working Group reviewed five to seven proposals each week. PSE required all evaluation teams to provide written memos documenting the strengths and weaknesses of each proposal, including the two projects evaluated outside the formal RFP process. PSE then took the key points from each evaluation team from each memo and aggregated them into one larger summary document, which is provided Exhibit N-1. This summary document was the basis upon which the evaluation teams shared their findings about a proposal's strengths, risks and potential fatal flaws. Based on the comprehensive reviews of each proposal, the RFP Working Group made weekly recommendations to either continue to evaluate proposals further in RFP Phase II or stop due diligence on a proposal due to fatal flaws, high risks or unfavorable economics. Examples of such flaws included:

- 1) Unacceptable or unfavorable commercial terms;
- 2) Lack of transmission or interconnection;
- 3) Incomplete or inaccurate wind resource data;
- 4) Unfavorable proposal price and quantitative analysis relative to other, more credible proposals;
- 5) Turbine technology risk; and
- 6) Unrealistic permitting and construction schedules creating unacceptable price risk.

3. 2010 RFP Phase I Selected Candidate Short List

Of the 2010 RFP renewable resource offers and the two projects evaluated outside the 2010 RFP, the RFP Working Group identified nine proposals to evaluate further in a RFP Phase II style analysis and review. Of those nine projects, seven are 2010 RFP proposals, one is the unsolicited [REDACTED] proposal and the last is the LSR Phase I. These nine projects represent the most attractive resources from both a qualitative and quantitative perspective from each resource type. The "Candidate Short List," provided below in Table 7, are listed in order of the Portfolio Benefit Ratio, with the exception of the two projects not formally bid into the 2010 RFP.

Table 7. 2010 RFP Phase I Candidate Short List for Renewable Resources

2010 RFP, Phase I Proposal Selected for Additional Due Diligence						Phase I: Quantitative Screening		
Proposal ID	Proposal	Technology Type	Size MW	P50 Annual RECs	On-line Year	Portfolio Benefit Ratio	Portfolio Benefit (\$ MM)	Levelized Cost \$/MWh
Self build and Unsolicited proposal								
	Lower Snake River Phase 1	Wind	342.7	[REDACTED]	2012	0.09	68.8	[REDACTED]
	[REDACTED]	Wind	[REDACTED]	[REDACTED]	2012	0.14	35.5	[REDACTED]
2010 RFP Proposals								
10059	[REDACTED]	REC	[REDACTED]	[REDACTED]	2012	2.26	14.2	[REDACTED]
10009	[REDACTED]	Biomass	[REDACTED]	[REDACTED]	2013	0.13	19.2	[REDACTED]
10025	[REDACTED]	Biomass	[REDACTED]	[REDACTED]	2013	0.11	19.7	[REDACTED]
10163	[REDACTED]	Biomass	[REDACTED]	[REDACTED]	2013	0.05	20.2	[REDACTED]
10075	[REDACTED]	Wind	[REDACTED]	[REDACTED]	2012	0.05	18.6	[REDACTED]
10117-a	[REDACTED]	Wind	[REDACTED]	[REDACTED]	2013	0.01	3.2	[REDACTED]
10117-b	[REDACTED]	Wind	[REDACTED]	[REDACTED]	2012	(0.03)	(8.7)	[REDACTED]

Exhibit M describes the analyses conducted to find the cost-effective amount of renewable resources PSE should acquire to meet its 2016 need for the Washington State RPS. The following table identifies PSE's REC need for 2016 and the cost-effective amount PSE could acquire as defined in the Development Plan Analysis.

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Table 8. PSE's 2016 REC Need

To Qualify for WA RPS in 2016	# of RECs
PSE's Total Need	2,115,800
PSE's Existing Supply	1,427,200
PSE's 2016 REC Deficiency	688,600
Cost-effective 2016 REC deficiency as identified in Exhibit X	346,300 to 2,283,900

PSE represents its renewable need in RECs to compare unlike resources similarly. It is difficult to compare a wind project to a biomass project based on plant capacity alone because REC generation is dependent on each project's capacity factor. As biomass plants tend to have a larger net capacity factor than wind, a biomass plant capacity can be smaller to produce the same amount of RECs as a larger capacity wind farm. A REC contract like [REDACTED] is different from both wind and biomass proposals in that PSE only receives RECs, whereas biomass and wind projects produce both generation and RECs. Thus, RECs are the common factor across all renewable resources.

Results from the 2010 RFP Phase I due diligence and analysis vary. The [REDACTED] [REDACTED] REC proposal evaluates the most favorably from a portfolio benefit ratio perspective because the REC contract helps PSE progress toward meeting its REC need while offsetting the cost of a generic wind farm. These results show that [REDACTED] adds value to the portfolio for minimal cost. Hence, the portfolio benefit ratio is high. The model does not calculate a levelized cost for the REC proposal because the metric is dependent upon project generation, which this proposal does not provide. PSE selected the [REDACTED] 20-year contract option for further review in 2010 RFP Phase II because the amount of annual RECs generated is small compared to the other eight projects and PSE wanted to see how the proposal performed when included in a portfolio optimization model.

The biomass proposals selected for a 2010 RFP Phase II analysis evaluated more favorably than the other biomass proposals received. While all nine biomass proposals PSE received are high risk from commercial, fuel and permitting standpoints, PSE believes these three projects are the best-positioned to resolve those risks. These three biomass proposals compared quantitatively well to wind proposals from a portfolio benefit

ratio perspective as they help fill PSE's REC and capacity needs. Levelized cost of two of the three proposals is higher than wind because biomass capital cost is higher than wind and biomass variable generation cost is dependent on fuel input prices, whereas wind has no fuel cost. As described previously, all of these projects are in the early stages of development and warrant further evaluation of commercial terms, fuel source, fuel cost, permitting efforts and the like.

The wind proposals on the 2010 RFP Phase I candidate short list were selected because they were the top wind proposals when both quantitative and qualitative due diligence was combined. All wind proposals located in Montana were eliminated despite their favorable net capacity factors because Montana projects require two transmission wheels to move the electricity from Montana to PSE's territory. This cost proved prohibitive in all cases. Other projects were eliminated from further review due to unacceptable commercial terms, technology risk, wind resource risk and pricing. All wind proposals identified for further review are from strong counter parties that have a proven track record of developing wind projects and provide the lowest reasonable cost among the wind proposals. However, as further explored in the 2010 RFP Phase II, three of the four wind projects are at risk of meeting the Treasury Grant guidelines due to various development risks. LSR Phase I is the only project of the wind and biomass proposals that is ready for construction.

B. 2010 RFP Phase II

In the 2010 RFP Phase II process for renewable resources, PSE performed additional quantitative and qualitative review of the "Candidate Short List" proposals. Due diligence activities included further inquiry via data requests to bidders and additional modeling with PSE's portfolio optimization model. The following discussion describes the 2010 RFP Phase II review in more detail and why PSE believes that at this time LSR Phase I is the lowest reasonable cost, lowest risk project to acquire.

1. Quantitative Evaluation

For the RFP Phase II evaluation, PSE used PSM III, which is a mixed integer linear optimization model based on the PSM I revenue requirement model used in 2010 RFP Phase I. The objective function of PSM III is to minimize portfolio revenue requirement while meeting the Company's annual capacity need and annual requirements for RECs

under Washington's RPS. One key difference in PSM III is that it finds the optimal combination of the nine resources evaluated in RFP Phase II that minimize portfolio cost, whereas PSM I only evaluates the portfolio cost impact of a single resource at a time. Another key difference is that unlike PSM I, PSM III uses the AURORA model to simulate dispatch of resources. The AURORA model runs 250 simulations that are created with econometric equations and statistical analysis to simulate variations in load, electric prices, natural gas prices, carbon costs, hydro generation, and wind generation. The AURORA model quantifies the simulated variable generation cost for all types of resources and also forecasts market prices for power. The expected cost of this generation and market prices are used in the PSM III model.

The purpose of the quantitative evaluation in the 2010 RFP Phase II is to find the lowest cost mix of resources to meet the future needs of customers. Similar to the 2009 IRP, it is important to evaluate resource cost performance across different costs and risks associated with a multitude of possible futures, resource combinations and the timing of resource additions. For the purposes of the 2010 RFP Phase II analyses, PSE used the following four scenarios identified from the 2009 IRP to simulate these uncertainties: Trends 2010, Business as Usual ("BAU"), Green World ("GW"), Low Growth ("LG"), plus Low Growth with Trends 2010 capital costs. Table 9 identifies the changing assumptions across each scenario modeled.

Table 9. 2010 RFP Phase II Scenario Assumptions

RFP 2010	Load Growth	Natural Gas Prices	CO ₂ Prices	Resource Capital Costs
Trend 2010	MED	MED	MED	MED
Business as Usual (BAU)	MED	MED	LOW	MED
Green World (GW)	LOW	HIGH	HIGH	HIGH
Low Growth (LG)	LOW	LOW	LOW	LOW
LG + Trends 2010 Capital Cost	LOW	LOW	LOW	MED

The last scenario, LG + Trends 2010 Capital, was added for this RFP Phase II analysis because the generic low capital cost assumptions used in the LG scenario are about 15% lower than the LSR Phase I capital costs. While it is possible that the total cost to build a wind farm could fall 15% in the future, PSE believes this to be unlikely for three reasons: 1) LSR Phase I already captures low wind turbine and BOP costs, 2) commodity prices are beginning to rise again as the global economy recovers from the world-wide economic

recession of 2008 and 2009, and 3) federal tax incentives available through 2012 and state RPS requirements will keep wind development demand at a higher level than had these two legislative initiatives not been available.

The results of the RFP Phase II analysis are provided in the following table. An "X" indicates a resource was selected for the optimal scenario.

Table 10. 2010 RFP Phase II PSM III Results

Proposed Project	Scenario Optimizations				
	Trends 2010	BAU	GW	LG	LG With Base Capital Costs
LSR Phase 1	X	X	X		X
[REDACTED]	X	X	X	X	X
	X				
		X	X		
			X		X
		X			
	X	X	X		X
	X		X		
Portfolio Cost	\$ 13,992,578	\$ 8,610,223	\$ 18,253,665	\$ 11,703,593	\$ 11,180,096
Levelized Cost					
RECs from Wind Acquisition	2,283,884	1,954,858	2,593,988	346,265	1,954,858
Equivalent MW Wind 30% CF					

The results illustrate that in four of the five scenarios analyzed, the PSM III optimization model selects wind and biomass resources that provide more RECs than the 2016 stated need of 688,600 RECs. An intriguing result is while the [REDACTED] REC proposal evaluated highly in the 2010 RFP Phase I analysis, it is only selected in the optimization model once in five scenarios. This is understandable as the other biomass and wind resources selected supply RECs, capacity and generation that can either be sold at market prices or offset market purchases of energy. Since PSM III selects more renewable resources to acquire than is necessary for the 2016 need, the REC contract only adds additional cost to the portfolio. The REC proposal does not provide a sufficient amount of RECs to offset the need to acquire another resource.

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2. Qualitative Evaluation

The quantitative results indicate that it would be economically favorable for PSE to acquire LSR Phase I, [REDACTED] and [REDACTED] selecting them in a minimum of four of the five scenarios. Although the models suggest that a significant amount of renewable resources should be secured before the stated PSE 2016 REC need, neither the PSM I nor PSM III models can distinguish between one project that is ready for construction and another that may not begin construction in time to qualify for the Treasury Grant. Because the quantitative results omit critical information about the proposals, PSE must use managerial experience and conduct due diligence to gain a more accurate perspective on project executability and associated risks with each proposed project.

In the 2010 RFP Phase II, PSE submitted clarifying data requests to the bidders of the seven³ external projects. In many cases, PSE needed more information about proposal development status, pricing and terms, permitting progress, interconnection schedule, real estate and lease agreements, the wind resource data, and fuel supply agreements, among several other factors.

From these data requests, PSE compiled a development progress table to identify a project's outstanding development activities and the risk of meeting such project's proposed commercial operation date. This table is provided in Figure 2, located at the end of the document. This assessment is always a critical element of any RFP evaluation because proposed pricing is, generally, dependent upon meeting the project development and construction schedule. The schedule is even more critical in this RFP because all of these developers intend to rely upon the Treasury Grant for project financing, and the evaluated economics were calculated on that basis. However, to qualify for the Treasury Grant, a project must start construction by December 31, 2010 and must be placed in service by December 31, 2012. See Exhibit S for further details of these requirements.

³ In the RFP Phase I analysis, PSE believed that projects located in Oregon could not qualify for the 1.2 REC multiplier. As a result, the quantitative modeling of the [REDACTED] proposal did not contain the 1.2 REC multiplier benefit. [REDACTED] was not selected for the RFP Phase II analysis because other wind proposals were more economical. However, when PSE submitted data requests to [REDACTED] concerning the [REDACTED] proposal, [REDACTED] communicated that projects in Oregon can qualify for the WA 1.2 REC multiplier provision if sufficient apprenticeship labor is used and [REDACTED] was planning on meeting this requirement. Changing this assumption made the [REDACTED] proposal more quantitatively favorable than the initial RFP Phase I screening indicated and as a result, PSE decided to bring this project forward to the RFP Phase II analysis.

Failure to achieve these milestones imposes significant risk that the offered price will increase and or that the development project will fail to materialize. The Wind Development Progress table illustrates that LSR Phase I is the only project among the five selected for further review that is ready for construction and will have all the necessary contracts for construction signed (planned for mid-May 2010) in time to satisfy both milestones.

Whereas [REDACTED] appears to have the most favorable economics in the 2010 RFP Phase I and Phase II analyses, the developer has not yet received an unappealable permit to construct the project. Additionally, [REDACTED] does not have a record of decision ("ROD") signifying that BPA has completed its environmental review required under the National Environmental Policy Act ("NEPA"). Given that BPA will not finalize its ROD until permitting is complete, it is unlikely that the ROD will be issued before the end of the year. Further, given that BPA will not execute its LGIA until the ROD is finalized, it seems highly unlikely that [REDACTED] can meet the Treasury Grant 5% safe harbor provision for start of construction by the end of 2010. As PSE currently understands, there is also risk that the developer can place the project in service before the end of 2012, when renewable incentives are set to expire, as the construction of a new BPA interconnecting substation could take as long as 24 months. As the pricing proposed for [REDACTED] assumes meeting the guidelines to receive the Treasury Grant, there is risk that the proposed price will increase. The potential size of a price increase remains unknown as it depends on whether [REDACTED] will be able to claim PTCs should [REDACTED] reach commercial operation by December 31, 2012 or miss all tax incentive deadlines completely.

The price proposed in the [REDACTED] offer is also at risk due to the proposed timeline of meeting the Treasury Grant. Although [REDACTED] also appears to be a favorable economic contender, [REDACTED] must complete substantial development work before PSE would enter into definitive agreements. PSE's RFP Working Group identified that five of the six project land leases do not extend for the 25-year operating life of the wind farm and have no provisions for extension. PSE would not assume construction risk until those leases are renegotiated with the land owners and signed. Additionally, DNV-GEC identified that the wind turbines are spaced too closely together and therefore the layout needs to be revised with the possible removal of six to eight wind turbines. A turbine

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suitability report has not been conducted for this site and the most recent copy of the wind resource report, dating from October 2008, was completed for a different layout. Given the current proposed wind turbine layout, [REDACTED] would be required to resubmit the interconnection request it submitted to PSE-Transmission because the current project capacity is different than the project capacity [REDACTED] submitted originally. Finally, [REDACTED] communicated to PSE that in order to meet the Treasury Grant 5% safe harbor provision, it would need to have all definitive agreements completed by July 31, 2010. This commercial negotiation timeline would be extremely difficult for PSE to meet, given the remaining development work that needs to be completed before construction. All these challenges suggest that there is risk that project economics will decline as PSE would have to elect to receive the lower-value PTCs instead of the Treasury Grant.

[REDACTED] is also further behind in the development process than LSR Phase I. [REDACTED] is the more economical project of the two proposed by [REDACTED] but it has a few key development items that need to be completed before it can start construction. BPA must complete the NEPA review and facilities study, which could take a year, before BPA can construct the substation needed for project interconnection. Substation design and construction can take up to two years. Therefore, there is significant risk that [REDACTED] will not make its proposed commercial operation date. Additionally, [REDACTED] also does not have an unappealable permit. [REDACTED] has to resubmit the original Final Environmental Impact Study ("FEIS") submitted for Phase I and Phase II of the [REDACTED] projects because there is a golden eagle nest nearby the project boundaries. This FEIS has to be approved before a permit application can be filed. Finally, [REDACTED] proposal for [REDACTED] indicated that it had submitted a request for firm transmission rights on BPA's system. However, during PSE's initial due diligence review, PSE staff could not locate the BPA queue number that is assigned to each transmission request. The day after PSE asked [REDACTED] to send PSE the specific queue number, [REDACTED] submitted its formal request to BPA. This is a good example of how submitted proposals sometimes reflect the project development status in a more favorable light than reality. Therefore, transmission rights have not been secured and, at best, firm transmission rights will not be available until BPA's West of McNary project is completed, which is estimated to occur early 2013.

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██████████ is farther along in the development process than ██████████. It has interconnection secured with PacifiCorp and an unappealable permit in hand. ██████████ requires PacificCorp and BPA transmission wheels but there is no indication that transmission service requests have been submitted. Thus, it is unknown if transmission rights can be secured. Furthermore, future PPA costs are uncertain as PacifiCorp does not have a published wind integration rate or an established methodology for calculating a rate. ██████████ is farther along than ██████████ and ██████████ in the wind development process and may be better positioned to meet the Treasury Grant provisions than these three projects should construction begin in 2010. However, ██████████ is the least economically favorable of the five projects in the 2010 RFP Phase II analysis.

3. 2010 RFP Selection of Renewable Resources

Typically, upon completion of a RFP Phase II process, the resource evaluation team recommends a Final Short List and a Continuing Investigation List. Projects that are placed on the Final Short List are identified as the most favorable resources from a comprehensive perspective, taking all qualitative due diligence and quantitative results into account. PSE contacts the bidders to begin discussions concerning project acquisition feasibility. Projects placed on a Continuing Investigation List are typically projects that PSE would have placed on a Final Short List, if it were not for a fatal flaw that could not be resolved through the Phase II process. Finally, some projects selected for the RFP Phase II review are not selected for resource acquisition as other projects as proposed appear more favorable and fill PSE's need for resources.

The recommendations PSE made for the 2010 RFP renewable resources did not result in the typical Final Short List and Continuing Investigation List discussed above. Instead, the resource evaluation team decided that further evaluation was warranted for many of the resources submitted in the 2010 RFP as well as the unsolicited ██████████ proposal before it could recommend placing these projects on a Final Short List or a Continuing Investigation List. As a result, five resources remain on the Phase II Candidate Short List. The resource evaluation team has decided to stop further consideration of three of the nine 2010 RFP renewable resources in light of unfavorable commercial and pricing risks. Finally, PSE recommends that LSR Phase I be constructed as it is the best renewable resource among the alternatives when price and execution risk are considered. The

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following table presents a high-level summary of each resource and identifies the resource evaluation team's recommendation at this time. The following write up describes PSE's recommendations in more detail and is supported by the attachments provided to this exhibit.

Table 11. (Part 1 of 2): 2010 RFP Phase II Results

Selection	RFP ID	Proposal ^f	Fuel Type	P50 Annual RECs ^{3,7}	COD	Rationale ¹	Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh ^e	Scenario Selection of 5
Self-Build and Unsolicited Proposal										
Recommended to construct	N/A	Lower Snake River Phase 1 343 MW Ownership	Wind		2012	Comparison to RFP proposals confirms recommendation to construct. Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project is in advanced stage of development with key development items completed. PSE has confidence in the costs, mitigation of risks, and schedule execution associated with the project. Project is construction ready and is well-positioned to capture Treasury grant.	0.09	68.8		4
Candidate Shortlist	N/A		Wind		2012	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project holds firm transmission rights, but does not have permit or interconnection agreement. Further investigation is necessary to explore potential schedule and price risks.	0.14	35.5		5
RFP Proposals										
Candidate Shortlist	10059		REC Only		2012	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Proposal partially meets renewable need with a small volume of RECs. Further investigation is necessary to explore commercial terms and credit support issues.	2.26	14.2	N/A	1
Candidate Shortlist	10009		Biomass		2013	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project has secured a portion of the fuel supply. Further investigation is necessary to explore risks associated with fuel pricing, availability for stand-alone operation, and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.13	19.2		2
Candidate Shortlist	10025		Biomass		2013	Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Seller assumes fuel cost risk. Project has secured 100% of fuel supply through existing operations of project partners. Further investigation is necessary to explore risks associated with achievable capacity factor and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.11	19.7		2
Candidate Shortlist	10163	25-yr PPA	Biomass		2013	Project economics are not as favorable as alternatives in the Phase 2 evaluation; however, project developer is experienced and backed by known companies with resources to achieve successful execution. Thus, further exploration of the proposal is recommended. Further investigation is necessary to explore risks associated with fuel supply and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.	0.05	20.2		1

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Table 11. (Part 2 of 2): 2010 RFP Phase II Results

Selection	RFP ID	Proposal ²	Fuel Type	P50 Annual RECs ^{3,7}	COD	Rationale ¹	Benefit Ratio	Portfolio Benefit (\$MM)	Levelized Cost \$/MWh ⁸	Scenario Selection of 5
Not Selected	10075	[REDACTED]	Wind	[REDACTED]	2011 ⁹	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Negotiation and execution of definitive agreements within required timeframe is aggressive. Commercial success at proposed price offer may be unrealistic given outstanding development items to be completed. Construction may not commence in time to capture Treasury grant. Winter construction schedule and interconnection facilities construction schedule places the proposed Commercial Operation Date at risk.	0.05	18.6	[REDACTED]	4
Not Selected	10117-a	[REDACTED]	Wind	[REDACTED]	2012	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Commercial success at proposed price offer may be unrealistic because the development schedule may not enable the project to capture Treasury grant. The proposed BPA interconnection construction schedule places the proposed Commercial Operation Date at risk, which also increases price risk if the project fails to achieve federal tax incentive dates. Transmission rights have not been secured.	0.01	3.2	[REDACTED]	1
Not Selected	10117-b	20-yr PPA	Wind	[REDACTED]	2012	Project economics are not as favorable as alternatives in the Phase 2 evaluation. Future PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols. Construction may not commence in time to capture Treasury grant.	(0.03)	(8.7)	[REDACTED]	2

NOTES:

- 1- Figure 2 to Exhibit N provides a summary of commercial, transmission, community, environmental and credit analysis.
- 2- With the exception of the REC Only proposal, all quantitative evaluations rely on the assumption that the Treasury Grant 5% safe harbor provision will be met by 12/31/2010. Should a developer not meet this provision, there is risk that the price proposed will increase.
- 3- All projects on the list are expected to qualify for a 1.2 REC multiplier by using 15% apprenticeship labor for construction work.
- 4- 2016 RPS requirement is estimated to be 2,115,775 RECs. PSE's existing resource currently supplies approximately 1,427,186 RECs.
- 5- An additional 688,589 RECs are needed to meet the 2016 need.
- 6- PSE's qualitative development plan analysis determined that 600 MW or more of wind should be acquired at this time. See Exhibit M.
- 7- 600 MW of wind is equivalent to 1,576,800 RECs per year.
- 8- REC only projects cannot be evaluated using Levelized Cost as there is no energy component.
- 9- Quantitative evaluation based on COD in 2012.

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- **The Renewable Resource Selected for Acquisition**

Of all the resources evaluated in or along side the 2010 RFP, the LSR Phase I is ranked number one because it is the lowest cost, lowest risk resource available to PSE. LSR Phase I is the only resource of the wind and biomass plants evaluated in the 2010 RFP Phase II that is ready to start construction. PSE has a finalized LGIA with BPA for interconnection of Phase I and has confirmed firm transmission rights for the Project. PSE has an unappealable permit for the Project and has obtained all the permits necessary for construction. All leases have been acquired and are valid for a period beyond the 25-year operating life of the Project. The site engineering is finalized, including all the roads, collector systems, turbine foundations, turbine layout and substations. The wind resource study is complete and PSE has a site suitability report from Siemens documenting the Siemens 2.3 MW WTG is a strong fit for the Project topography and wind resource. PSE has the Siemens TSA and SMA finalized. The BOP Agreement with RES is finalized for the construction of the Project and PSE is requiring that Siemens and RES employ at least 15% apprenticeship labor during project construction to qualify for the Washington 1.2 REC multiplier. PSE will sign and execute the LGIA, TSA, SMA and BOP Agreement within days of May 5, 2010 should the Board of Directors approve LSR Phase I.

If project economics are considered alone, LSR Phase I is the second most economic wind resource available to PSE at this time. However, given Phase I's readiness for construction and the final status of all necessary contracts, LSR Phase I has the least price risk among the nine proposals selected for further evaluation. Nevertheless, this project is not without risk, and Exhibit W provides a risk analysis of the project and the actions PSE has taken to mitigate those risks.

- **The Renewable Resources Selected for the Candidate Shortlist**

The resource evaluation team has kept the [REDACTED] proposal, the [REDACTED] REC proposal, and the three biomass projects on the Candidate Shortlist because it needs additional time to better understand each of these projects.

[REDACTED] is the second ranked renewable resource from a project risk perspective because the project PPA price is lowest of the wind PPA prices received during the 2010 RFP process and evaluates as one of the most economic resources in both RFP Phase I

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and Phase II analyses. However, as discussed earlier, there is considerable price risk associated with this proposal. [REDACTED]

- 1) Has yet to acquire an unappealable permit to construct the project;
- 2) Does not have all the land leases in place to build the wind capacity proposed;
- 3) Does not have a ROD or LGIA from BPA for project interconnection;
- 4) Does not have all the permits needed for construction; and
- 5) Most likely has not completed engineering work due to the uncertainty around land acquired for the project.

Given that PSE received this proposal on March 30, 2010 and has not had time to conduct a similar level of due diligence review as was done on the RFP proposals, PSE kept [REDACTED] on the Candidate Short List so that it take additional time to determine if this resource really does seem to be as economic as it appears.

The resource evaluation team kept the [REDACTED] REC proposal on the Candidate Short List because it needs additional time to study the conflicting economic analyses from the 2010 RFP Phase I and Phase II, and to better understand the commercial terms and risks associated with this project. As described earlier, when evaluated as a stand-alone resource, PSM I results ranked this project the highest from a portfolio benefit ratio perspective because the REC proposal helps PSE fill its need for RECs without adding the cost of building or contracting a wind resource. However, PSE's optimization model only chooses this project in one of the five scenarios because the model selects generating renewable resources to meet PSE's REC needs. This REC contract proposal is too small to offset the need to acquire larger facilities and thus is evaluated by the optimization model as a cost burden to the portfolio. PSE needs extra time to explore the credit worthiness of the counterparty and what security the counterparty would be willing to provide to protect PSE in case of a default. As a result, PSE intends to study this proposal further, assuming its developer extends the validity of its offer as expected.

The resource evaluation team has kept all three biomass proposals – [REDACTED] – on the Candidate Short List because PSE wants to study these projects further. Two of the three biomass

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proposals evaluated in PSM I more favorably than LSR Phase I on the basis of portfolio benefit ratio. Only [REDACTED] evaluated favorably from a levelized cost perspective. However, in the optimization model, all three projects were only selected once or twice out of the five scenarios and none of them were selected in Trends 2010, the portfolio PSE believes to be most representative of the current environment. The wind projects contributed more to minimizing portfolio costs because wind has no variable fuel cost associated with generation.

A more important reason to keep these projects on the Candidate Short List is that biomass plants count towards meeting PSE's capacity need as they can be run to meet peak winter load. Due to this important factor, PSE needs to evaluate these proposals along side the 2010 RFP natural gas proposals, which PSE will evaluate in May and June 2010. Before PSE can make a decision to pursue acquisition of one or more biomass plants, PSE needs to determine if these biomass resources are also more economical than other combined cycle or peaking plants. Additionally, PSE needs to gain better understanding and comfort around the risks involved with biomass facilities as each proposal has fuel supply and / or fuel price risk.

- **The Renewable Resources Not Selected for Further Evaluation**

There are two key reasons for not keeping [REDACTED] on the Candidate Short List. While these three projects were among the best of the wind resources PSE reviewed in the 2010 RFP Phase I, there are other renewable resource proposals on the Candidate Short List that currently evaluate more favorably from both qualitative and quantitative perspectives. Each project has price risk in being able to meet the Treasury Grant start of construction requirement by December 31, 2010 due to outstanding work that has to be completed before construction can begin. Drawing on experience, PSE believes [REDACTED] would require a substantial effort by PSE staff to manage completion of remaining development work and negotiate definitive agreements. Experience also indicates that pricing typically increases during negotiations as further project development and information is refined and terms are negotiated. In order to achieve the best execution outcome, PSE believes it would be more prudent to focus its efforts on constructing LSR Phase I while continuing to evaluate the best of the other five projects that remain on the Candidate Short List.

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Comparative Analysis Conclusion

PSE concludes that LSR Phase I is the lowest reasonable cost and lowest risk renewable resource PSE can acquire today for the long term benefit of its customers. Of all the resources selected for a 2010 RFP Phase II review, LSR Phase I is the only project that is ready to start construction as of mid-May 2010 and should construction on LSR Phase I begin May 2010, the Project is the most likely renewable resource project that can meet the Treasury Grant safe harbor provision. Should a decision by the Board of Directors be postponed beyond May 5, 2010, however, LSR Phase I would contain some of the same price risks identified in the other resource proposals because a delay could negatively impact the negotiated commercial terms of the Turbine Supply Agreement ("TSA"), Service and Maintenance Agreement ("SMA"), and the Balance of Plant ("BOP") Agreement. PSE, therefore, recommends that the Board of Directors approve the 342.7 MW LSR Phase I Project.

Table 12. Renewable Resources Evaluated During 2010 RFP

Project ID	Resource type	Project name	RFP counterparty	State	Offer structure	Status	OOD
10163	Biomass			WA	PPA-project	Development	3/1/2013
10161	Biomass			OR	PPA-project	Development	mid-2012
10009	Biomass			WA	PPA-project	Development	6/1/2012
10063	Biomass-waste			WA	PPA-project	Development	8/30/2012
10025	Biomass-wood			OR	PPA-project	Development	4/1/2012
10121-a	Biomass-wood			OR	PPA-project	Development	2/1/2013
10109	Biomass-wood			WA	PPA-project	Development	1/1/2014
10058	Biomass-wood			WA	PPA-project	Development	8/1/2012
10086	Biomass-wood			MT	Ownership	Operating	2/18/2010
10053-a	REC-only			ID	RECs	Operating	1/1/2008
10059-a	REC-only			ID	RECs	Development	10/31/2011
10122	Solar			OR	PPA-project	Development	5/20/2011
10015	Wind			WA	Ownership	Development	5/31/2014
10147	Wind			OR	PPA-project	Development	7/1/2014
10096	Wind			MT	PPA-project	Development	12/30/2012
10100	Wind			OR	Ownership	Development	12/31/2012
10148	Wind			WA	Ownership	Development	12/31/2012
10136	Wind			MT	PPA-project	Development	12/1/2012
10014	Wind			WA	Ownership	Development	10/15/2012
10075-a	Wind			WA	Ownership	Development	3/31/2011
10120-a	Wind			WA	PPA-project	Development	12/31/2011
10152-a	Wind			MT	PPA-project	Development	
10016	Wind			WA	PPA-project	Development	10/31/2011
10150	Wind			MT	Ownership	Development	
10117-a	Wind			WA	PPA-project	Development	12/2012
10117-b	Wind			OR	PPA-project	Development	12/2011
10108-a	Wind			WA	PPA-project	Operating	1/1/2002
10080	Wind			MT	PPA-project	Development	9/1/2011
10049	Wind			WA	PPA-project	Operating	12/15/2009
10004	Wind			BC	PPA-project	Development	11/30/2015
10105-a	Wind			MT	Ownership	Development	11/30/2011
10105-d	Wind			MT	Ownership	Development	11/30/2011
10162-a	Wind			MT	PPA-project	Development	12/31/2011
Resources Reviewed Outside of 2010 RFP							
	Wind	LSRWP, Phase I		WA	Ownership	Development	4/15/2012
	Wind			OR	PPA	Development	12/31/2011

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Phase II Candidate Short List Wind Project Development Progress		Y = Yes N = No ? = Unknown Pending = Agreement document is finalized and awaiting governance approval.					
	Project Development Status	LSRWP, Phase I					Notes
Wind Resource	Wind resource assessment received from credible wind resource consultant	Y	Y	Y	Y	Y	[REDACTED] has a wind resource assessment for an outdated turbine layout. A new wind resource report is needed to match the revised turbine layout.
	Wind resource report is final	Y	?	N	N	N	Wind turbine selections and / or layout may change for [REDACTED]
Real Estate	All land leases secured	Y	N	Y	Y	Y	Additional property required for [REDACTED] but developer is not in active negotiations with land owner.
	Land leases are valid for life of proposed projects	Y	?	N	Y	Y	Land leases for [REDACTED] do not last for duration of project life. Leases need to be renegotiated, which PSE would have to complete before construction.
Interconnection & Transmission	BPA ROD complete	Y	N	n/a	N	n/a	
	LGIA signed with transmission utility for interconnection	pending	N	N	N	Y	LGIA for Lower Snake River Phase I is ready to be signed, which PSE will do should the BOD approved of the project at the May 5th BOD meeting.
	Transmission request submitted with transmission provider	Y	Y	N	Y	Y	[REDACTED]
	Firm transmission secured	Y	Y	N	N	N	[REDACTED] - LSR has firm transmission for 250 MW upon COD. Firm transmission for remaining 92.7 MW will be secured mid-2013, a little more than a year after planned COD.
Permits	Permit submitted to local county or EFSEC	Y	Y	Y	Y	Y	
	Environmental / SEPA / NEPA review complete	Y	N	Y	N	Y	
	Permit received from governing authority	Y	N	Y	N	Y	
	Unappealable permit in hand	Y	N	Y	N	Y	Permit appeal for [REDACTED] is unlikely as project is located in wind overlay zone.
	NPDES complete	Y	N	Y	?	?	
	DAHP consultation and approval (or Oregon counterpart)	Y	?	Y	?	?	
	Construction permits received	Y	N	N	N	N	

Figure 2 (Part 1 of 2). Wind Project Development Progress

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		LSRWP, Phase I					
Project Development Status							Notes
Wind Turbines	Wind turbines for site selected	Y	Y	Y	Y	Y	It is assumed that [REDACTED] and [REDACTED] will allocate wind turbines from stock for the [REDACTED]
	Turbine Service Agreement and Service and Maintenance Agreement signed with turbine manufacturer	pending	pending	N	N	N	The TSA and SMA for the Lower Snake River are finalized and will be signed May 6th should the BOD approve of LSR Phase I at the BOD meeting May 5th.
Balance of Plant	Road & turbine layout design complete	Y	?	N	?	?	[REDACTED] final wind turbine layout is subject to change after DNV-GEC questions turbine suitability of the layout because of close turbine spacing.
	O&M building design complete	N	?	N	?	?	
	BOP contract executed	pending	N	N	N	N	The BOP for the Lower Snake River is finalized and will be signed May 6th should the BOD approve of LSR Phase I at the BOD meeting May 5th.
Treasury Grant	5% safe harbor provision will be met by 12/31/2010	Y	?	?	?	?	- [REDACTED] communicated that all transaction documents must be completed with PSE by 7/31/10 for the project to fulfill the Treasury Grant safe harbor provisions. This timeline would be extremely difficult to meet. If the Treasury Grant cannot be secured, PTCs will be elected tax incentive. - PSE legal counsel advises that a 5% safe harbor provision be met with onsite construction work only. Some developers may choose to rely on wind turbine milestone payments as a way to meet the safe harbor provision.
	Likely that project will reach COD by 12/31/2012	Y	?	Y	?	Y	Based on BPA timing for interconnection construction, it may be unlikely that [REDACTED] or [REDACTED] reach COD by 12/31/2012
WA RPS	15% apprentice labor will be used during construction to meet WA RPS provision	Y	Y	Y	Y	Y	

Figure 2 (Part 2 of 2). Wind Project Development Progress

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Evaluation Criteria

- Compatibility with Resource Need
- Cost Minimization
- Risk Management
- Public Benefits
- Strategic and Financial

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2010 RFP – Draft Phases I & II Qualitative and Quantitative Summary* – Renewable Resources

Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>PSE development Lower Snake River, Phase I PSE</p> <p>Garfield County, WA Owned asset Wind development 343 MW</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.088</p> <p>Portfolio benefit: \$68.8 mil</p> <p>Selected in 4 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> • Fully meets renewable need for 2016 • Project economics are favorable when compared to alternatives in the Phase 2 evaluation; wind ownership proposal that scores the best according to the PSM Portfolio Benefit Ratio and levelized cost metrics • Project schedule allows project to meet safe harbor provisions of federal tax cash grant and Washington state sales tax exemption • Project has received an unappealable Conditional Use Permit • 3rd party wind resource assessment has been performed by two consultants estimating project NCF • PSE has completed a Facility Study, Feasibility Study, and System Impact Study as well as NEPA review. BPA Record of Decision has been received. • Has all major contracts (TSA, SMA, BOP, and LGIA) ready to for signature • All leases secured except for one. Pending lease is for public land owned by DNR and is awaiting signature • Has 200 MW of firm transmission at COD (April 15, 2012). Has another 50 MW of firm transmission 2 months after COD. • Positive presence within the local community. 	<ul style="list-style-type: none"> • 92.7 MW of firm transmission will be available 15 months after COD (July 1, 2013). The project economics take curtailment into account. • There is limited experience with the 101 meter rotor being used on the SWT 101 2.3 MW wind turbine generator, which will be used for the project. • Potential cost increase to build BPA's Central Ferry substation or delay to construction schedule, which could delay PSE's WTG commissioning schedule 	<p>Seek BOD approval to construct project</p> <p>Comparison to RFP proposals confirms recommendation to construct. Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project is in advanced stage of development with key development items completed. PSE has confidence in the costs, mitigation of risks, and schedule execution associated with the project. Project is construction ready and is well-positioned to capture Treasury grant.</p>

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**This summary is designed to be a high-level snapshot of key risks and advantages, and is intended to stimulate working group discussion. For a more robust picture of PSE's summary evaluation findings, refer to the working group project memos.*



Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>Unsolicited Proposal</p> <p>[REDACTED]</p> <p>OR</p> <p>20-year PPA</p> <p>Wind development</p> <p>[REDACTED]</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.143</p> <p>Portfolio benefit: \$35.5 ml</p> <p>Selected in 5 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Partially meets renewable need for 2016 Project economics are favorable when compared to alternatives in the Phase 2 evaluation; wind PPA proposal that scores the best according to the PSM Portfolio Benefit Ratio and levelized cost metrics (assuming Treasury grant qualification) Prior commercial success in negotiations with [REDACTED] [REDACTED] has procured 112 MW of firm point-to-point transmission to the Mid-C [REDACTED] is in final negotiations with [REDACTED] for Turbine Supply Agreement and expects to execute such agreement by end of April 2010. Turbine pricing used in [REDACTED] pricing are based on binding bids. [REDACTED] is a sophisticated developer with history of successful execution 	<ul style="list-style-type: none"> Does not meet PSE preferred commercial terms; [REDACTED] would transfer cost risks to PSE by proposing that PSE be responsible for generation imbalance and wind integration charges PPA negotiation success riskier than prior ownership negotiations because previous PPA negotiation experience with [REDACTED] resulted in late negotiation stage price increase The start of construction is proposed to begin in the second quarter of 2011, which may put the project in risk of missing the safe harbor provisions of the Treasury grant (It is PSE's understanding that 5% of construction work has to be completed in 2010 to satisfy the safe harbor provisions). Timely issuance of the EFSC Site Certificate is potentially at risk due to two factors: 1) organized community opposition may extend or delay the permitting process; 2) a golden eagle has been observed within the project area, and take permits are currently not available because USFWS is still developing guidance around issuance of take permits BPA interconnection schedule may put proposed Commercial Operation Date of December 2011 at risk and may cause project to miss federal tax incentive deadline of December 31, 2012. BPA has not issued a construction schedule. PSE estimates the schedule to be approximately 30 months after completion of the NEPA review and issuance of the Record of Decision. NEPA review is expected to take 90 days after the project obtains an EFS/EC Site Certificate (estimated for December 2010). PSE will require additional information regarding the BPA construction scope of work and schedule, including the status of any long-lead procurement items such as large generation step-up transformer, which typically requires one year from placing order to delivery to site. Proposal was submitted on March 30, 2010 and outside of RFP process. PSE will require additional information to evaluate proposal fully. 	<p>Selection Recommendation & Rationale</p> <p>Candidate short list</p> <p>Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project holds firm transmission rights, but does not have permit or interconnection agreement. Further investigation is necessary to explore potential schedule and price risks.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>10059</p> <p>[REDACTED]</p> <p>ID</p> <p>20-yr unbundled RECs</p> <p>Wind development</p>	<p>Levelized cost: n/a</p> <p>Portfolio benefit ratio: 2.263</p> <p>Portfolio benefit: \$14.2 mil</p> <p>Selected in 1 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Partially meets renewable need for 2016 Project economics are favorable when compared to alternatives in the Phase 2 evaluation Flexible term: minimum of 10-years and as long as 20-years The project has executed a 20-year standard Qualifying Facility power purchase agreement with [REDACTED] for [REDACTED] approved this agreement in December 2009. Annual volume is relatively small, yet not insignificant. [REDACTED] has experience developing wind projects. 	<ul style="list-style-type: none"> Credit terms are uncertain Proposal valid for only 60 days (beginning March 2, 2010). Definitive agreements must be completed and approved within 90 days. However, [REDACTED] is willing to extend this deadline. If selected, PSE would pursue such an extension. No wind study provided. [REDACTED] has indicated that the proposed wind energy production forecast of [REDACTED] MWh is based on the P50 ("as delivered" product) 	<p>Candidate short list</p> <p>Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project has secured a portion of the fuel supply. Further investigation is necessary to explore risks associated with fuel pricing, availability for stand-alone operation, and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.</p>
<p>10009</p> <p>[REDACTED]</p> <p>WA</p> <p>20-yr PPA</p> <p>Biomass development</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.132</p> <p>Portfolio benefit: \$19.2 mil</p> <p>Selected in 2 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Project economics are favorable when compared to alternatives in the Phase 2 evaluation Project is seeking to have a high proportion of project output qualify as renewable under Washington RPS. PSE will require written determination from state. Reliable power source to help meet capacity needs Project has strong support from local leaders; will save local jobs. [REDACTED] is active in community volunteer programs Project has filed for interconnection to PSE's transmission system Project provides heat-rate guarantee, which limits PSE's risk to fluctuations due to fuel quality. Project proposes an energy-only price and assumes risk for project availability and capacity factor. Project takes advantage of existing mill operation and resources for water supply, fuel supply, and wastewater treatment. Project represents a modest increase in total wood handling by facility. 	<ul style="list-style-type: none"> Project partners have not provided a defined partnership agreement. Early stage development will require significant progress to start construction in 2010 to capture Treasury grant; PSE believes developer may have underestimated time required to obtain air permit. Project operations are interdependent with the adjacent mill for fuel supply, water supply, wastewater treatment, and operations staff; it seems likely that interruption of one entities' operations would negatively affect the operations of the other. Counterparty has not supplied long-term plan for independent operation. Project must be run as a "must run" unit. No guarantees of minimum output Project proposes all fuel price risk on PSE, though specific terms on how to index fuel price have not yet been discussed. [REDACTED] Multiple violations listed in EPA ECHO database regarding violations of wastewater permit in 2007. 	<p>Candidate short list</p> <p>Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Project has secured a portion of the fuel supply. Further investigation is necessary to explore risks associated with fuel pricing, availability for stand-alone operation, and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>10025</p> <p>20-yr PPA Biomass development</p> <p>OR</p> <p>25-yr PPA Biomass development</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.107</p> <p>Portfolio benefit: \$19.7 mil</p> <p>Selected in 2 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Project economics are favorable when compared to alternatives in the Phase 2 evaluation Provides firm power and partially meets renewable need for 2016 Seller assumes price risk on fuel supply. Seller assumes risk for availability and capacity factor on project. Seller has fuel supply contracts for 100% of fuel required for plant for term of PPA from project partners' existing operations and project partners have significant biomass supply experience. Site under option. Local support has been excellent. Project presented to [REDACTED] several letters of support received 	<ul style="list-style-type: none"> Developer is pursuing aggressive development schedule to capture Treasury grant. Failure to meet this schedule will likely affect pricing. Project has not secured permits, water supply, or wastewater treatment arrangements. Developer has not provided agreements for construction or term finance. No transmission requested; transmission possibly by 2014, but a conservative estimate would be 2016; possible non-firm service Point of Interconnection with an electric cooperative may increase transmission costs (PSE's quantitative analysis assumed a Point of Interconnection at the BPA [REDACTED] substation) Construction will result in a major source review. Proposed 180-day permitting period may be unrealistic; however, developer asserts that similar projects in Oregon have met similar schedules. Project finance anticipates use of State of Oregon loan, business energy tax credit, and contribution from the engineering and procurement contractor for construction finance. Developer has not provided agreements or anticipated requirements. Project assumes [REDACTED] capacity factor, which is higher than most biomass plants. Failure to meet this capacity factor may cause developer to adjust pricing. Project water system intertwined with [REDACTED] wastewater plant. Back-up water supply for cooling tower unclear. 	<p>Candidate short list</p> <p>Project economics are favorable when compared to alternatives in the Phase 2 evaluation. Seller assumes fuel cost risk. Project has secured 100% of fuel supply through existing operations of project partners. Further investigation is necessary to explore risks associated with achievable capacity factor and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity offers in the next phase of the RFP.</p>
<p>10163</p> <p>20-yr PPA Biomass development</p> <p>OR</p> <p>25-yr PPA Biomass development</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.047</p> <p>Portfolio benefit: \$20.2 mil</p> <p>Selected in 1 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Meets capacity need (after 2016) and partially meets renewable need for 2016 Willing to consider apprenticeship labor to qualify for 1.2 REC multiplier Community support in the media and economic development circles Counterparty is willing to provide a project lifetime availability guarantee and negotiate capacity factor guarantees. Counterparty states that it will provide a letter of credit or reasonable guarantee Experienced developer and operator Reference plant design and fleet for owner/operator Minor air emissions source. Project is completing system impact study with BPA. 	<ul style="list-style-type: none"> Project economics are not as favorable as biomass alternatives in the Phase 2 evaluation. The developer has not yet arranged long-term fuel supply contracts and has not provided PSE with supply studies. Pricing assumes capture of Treasury grant. Project is still in early stage development (e.g., no firm contracts for site, water, wastewater, permits, fuel supply, and finance). Failure to move forward on anticipated schedule could impact pricing. Proposal indicates desire to pass through fuel costs with little risk to developer; specific terms have not yet been discussed. Developer is looking to PSE to help arrange transmission to PSE's system; it is unclear if developer has requested transmission from BPA. 	<p>Candidate short list</p> <p>Project economics are not as favorable as biomass alternatives in the Phase 2 evaluation; however, project developer is experienced and backed by known companies with resources to achieve successful execution. Thus, further exploration of the proposal is recommended. Further investigation is necessary to explore risks associated with fuel supply and development schedule to capture Treasury grant. PSE considers biomass to be a capacity resource and will continue to evaluate the proposal with alternative capacity</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>10075 [Redacted] WA Ownership offer Wind development</p>	<p>Levelized cost: [Redacted] MWh Portfolio benefit ratio: 0.047 Portfolio benefit: \$18.6 mil Selected in 4 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Partially meets renewable need for 2016 Wind ownership that scores the second best according to the PSM Portfolio Benefit Ratio and levelized cost metrics Project holds unappealable Site Certificate Agreement through EFSEC Interconnection Facilities Study has been completed for [Redacted] Wind resource has been studied for many years Seller states that turbines [Redacted] are available for project Counterparty is a large developer with substantial experience in the wind industry No credit/counterparty issues identified 	<ul style="list-style-type: none"> Project economics are not as favorable as wind alternatives in the Phase 2 evaluation. Development schedule is designed to meet safe harbor provisions of Treasury grant, which would require execution of definitive agreements no later than July 31, 2010. This schedule is aggressive and would require completion of several development items before definitive agreements could be executed by PSE. PSE's history with [Redacted] suggests that timely execution of definitive agreements may not be possible. Turnkey construction proposal is not PSE's preferred contract structure. PSE's expectations for oversight and control of design details could negatively affect proposed schedule and proposed pricing. Real estate land leases require re-negotiation because five of six leases expire in 2012 with no renewal option, which would reduce life of 25-year project if not extended. DNV-GEC recommends rearranging the turbine layouts if possible, or removing up to 6 - 8 of the proposed turbine locations due to the close spacing. [Redacted] does not have a turbine suitability report from the turbine manufacturers. Independent wind energy resource assessment report was prepared for an earlier version of the site layout. PSE would require the completion of a report for final layout design. No transmission has been requested on either PSE's or BPA transmission system. Interconnection Facilities Study assumes [Redacted]: 2.0 MW - [Redacted] MW using REPower turbines. If project uses other turbine technology or uses different capacity (current proposal assumes [Redacted] MW), all interconnection studies must be redone; PSE's estimates up to 8 months delay for re-studies. The proposed commercial online date is potentially at risk due to the estimated schedule for PSE's interconnection facilities. PSE transmission states that procurement of long-lead time is the critical path for timely completion of the interconnection. Equipment procurement requires 9-12 months and procurement would not typically occur until a Large Generator Interconnection Agreement has been signed; however, the developer can begin the process earlier through an engineering and procurement agreement. The developer may also elect to build the station to PSE's specifications if they feel they can better meet their schedule. The project has encountered significant community 	<p>offers in the next phase of the RFP.</p> <p>Not selected</p> <p>Project economics are not as favorable as wind alternatives in the Phase 2 evaluation. Negotiation and execution of definitive agreements within required timeframe is aggressive. Commercial success at proposed price offer may be unrealistic given outstanding development items to be completed. Construction may not commence in time to capture Treasury grant. Winter construction schedule and interconnection facilities construction schedule places the proposed Commercial Operation Date at risk.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>10117(a)</p> <p>[REDACTED]</p> <p>WA</p> <p>20-year PPA</p> <p>Wind development</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.014</p> <p>Portfolio benefit: \$3.2 mil</p> <p>Selected in 1 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Partially meets renewable need for 2016 Wind PPA that scores the second best according to the PSM Portfolio Benefit Ratio metric Prior commercial success in negotiations with [REDACTED] Favorable commercial terms: Fixed PPA price, as generated firm hourly energy, seller responsible for generation imbalance costs and shares wind integration costs. PSE has negotiated acceptable credit terms with this counterparty in the past [REDACTED] is a sophisticated developer with history of successful execution Low environmental and community impacts due to low population density and located in existing wind overlay zone 	<ul style="list-style-type: none"> opposition, but such opposition has cooled since settlement between the county and applicant. Project runs risk of increased attention once construction begins. Project economics are not as favorable as wind alternatives in the Phase 2 evaluation. Pricing assumes tax cash grant in lieu of investment tax credit; however, the project has not yet received required permits to begin construction. Price also assumes commercial online date in 2012, but BPA interconnection schedule may put this Commercial online date at risk and cause project to miss federal tax incentive deadline of December 31, 2012. BPA's System Impact Study (SIS) indicates that there will be 18 - 24 months of remaining time after completion of Facilities Study and NEPA to design and construct Wood Creek Substation. PSE is unaware of any information that would indicate that BPA has started the NEPA process for the Wood Creek substation. The NEPA process could take up to a year, which puts the scheduled Commercial online date at risk. Transmission rights are not secured. Firm transmission will require completion of the West of McNary Project, which is projected to be complete in early 2013 Phase II still requires an Energy Overlay Zone permit. The Final Environmental Impact System, issued in January 2010, addressed conditions for both Phase I and II, although an Energy Overlay Zone permit was only issued for Phase I due to identification of a golden eagle nest outside the project area. Prior to submitting a permit application for Phase II, the Final Environmental Impact Statement will require resubmission as a result of comments issued by Washington State Department of Fish and Wildlife during the Draft Environmental Impact Statement period. Developers are in process of finalizing necessary studies under the guidance of Washington State Department of Fish and Wildlife to address these concerns. Developer has not selected a turbine technology, but the proposal but assumes Gamesa turbines. According to DNV-GEC, Gamesa turbines carry a risk of significant component failures and financial institutions have had reservations about the turbines. According to DNV-GEC, the effects of upwind turbines from nearby operating projects are unknown at this time and would be out of PSE's control. 	<p>Not selected</p> <p>Project economics are not as favorable as wind alternatives in the Phase 2 evaluation. Commercial success at proposed price offer may be unrealistic because the development schedule may not enable the project to capture Treasury grant. The proposed BPA interconnection construction schedule places the proposed Commercial Operation Date at risk, which also increases price risk if the project fails to achieve federal tax incentive dates. Transmission rights have not been secured.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
<p>10117(b)</p> <p>[REDACTED]</p> <p>OR</p> <p>20-year PPA</p> <p>Wind development</p> <p>[REDACTED]</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: (0.032)</p> <p>Portfolio benefit: (58.7 mb)</p> <p>Selected in 2 of 5 scenarios tested.</p>	<ul style="list-style-type: none"> Partially meets renewable need for 2016 Prior commercial success in negotiations with [REDACTED] Favorable commercial terms: Fixed PPA price; as generated firm hourly energy, seller responsible for generation imbalance costs and shares wind integration costs, PSE has negotiated acceptable credit terms with this counterparty in the past [REDACTED] is a sophisticated developer with history of successful execution Has EFS&C site certificate; favorable permitting progress made to date Executed Large Generator Interconnection Agreement 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. Pricing assumes Treasury grant, but construction is not scheduled to start until 2011, which may affect the ability to obtain Treasury grants. Future PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols Developer has not selected a turbine technology. Final selection may involve a wind turbine with poor operational history or company financial instability (e.g., Suzlon) No mention of assignment of firm Point-to-Point transmission to PSE's system 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives in the Phase 2 evaluation. Future PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols. Construction may not commence in time to capture Treasury grant. No transmission has been secured.</p>

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The proposals below were not selected to proceed for Phase II evaluation. They are organized alphabetically by resource type.

Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection Recommendation & Rationale
10109 WA 20-year PPA Biomass development	Levelized cost: n/a Portfolio benefit ratio: n/a Portfolio benefit: n/a	<ul style="list-style-type: none"> Provides firm capacity and qualifies for Renewable Portfolio Standard Secured fuel supply 	<ul style="list-style-type: none"> Finance and construction predicated in pilot project that hasn't been performed yet (scheduled for 2012) No terms, commercial online date or timeline for commercial project provided Conceptual pricing indicated; however, project is too early in preliminary planning phases to evaluate quantitatively in a meaningful way 	Not selected Proposal is conceptual and requires pilot project before larger project is viable. No pricing or offer structure was submitted because of the very early stage development of the project.
10121 OR 20-yr PPA with purchase option (yr 5) Biomass development	Levelized cost: [REDACTED] MWh Portfolio benefit ratio: 0.011 Portfolio benefit: \$3.2 mil	<ul style="list-style-type: none"> Provides firm capacity and qualifies for Renewable Portfolio Standard Secured fuel supply 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. Risk that counterparty would not honor its contractual obligations. (The counterparty recently defaulted on a long-term PPA with PSE.) The project has not secured a location or filed for permits, interconnection, water supply, or wastewater discharge. Project has not secured site, permits, water supply, or wastewater treatment arrangements. No agreements for construction or firm finance provided. Project has not provided any engineering analyses beyond preliminary heat and mass flow and has not provided any evidence of engineer, EPC contractor, or equipment selection. The projected will be a major source emitter in a PM2.5 nonattainment area, so permitting to reach acceptable PM levels may be challenging. 	Not selected Project economics are not as favorable as alternatives. Project has secured fuel supply. The counterparty recently defaulted on a long-term PPA with PSE.
10063 WA 20-year PPA Biomass development	Levelized cost: [REDACTED] MWh Portfolio benefit ratio: 0.217 Portfolio benefit: \$4.2 mil	<ul style="list-style-type: none"> Project economics are favorable when compared to alternatives Distributed generation connected to PSE's system on the west side of the Cascade Range Project well-received by the [REDACTED] at initial meeting with developer 	<ul style="list-style-type: none"> It is unclear if this project qualifies for the RPS. If project does not qualify as an RPS resource, it should be evaluated with alternative capacity offers in the next phase of the RFP. Unclear how fuel supply will be secured/guaranteed No permitting scope proposed and limited information to evaluate operationally Developer is still seeking locations for project siting and may site outside PSE system 	Not selected Project is in early stage development and has not secured a site location. Fuel supply is not secured. Need determination of qualification for RPS.

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10161</p> <p>Levelized cost: [REDACTED] MWh Portfolio benefit ratio: 0.087 Portfolio benefit: \$16.0 mil</p> <p>OR</p> <p>20-yr PPA Biomass development 24.9 MW</p>	<p>Project economics are favorable when compared to alternatives Provides firm capacity and qualifies for Renewable Portfolio Standard Some fuel supply is secured from project partners' existing operations (15-yr terms) Project partners have significant biomass supply experience</p>	<p>The aggressive schedule is designed to capture Treasury grant but may not be possible to achieve because of a potential non-attainment area; major source review required (proposed 245-day permitting period may not be realistic); and potential for significant upgrades to pollution control equipment proposed. Failure to capture Treasury grant would likely affect pricing. Project has not secured site, permits, water supply, or wastewater treatment arrangements. No agreements for construction or term finance provided. Status of the bond issue with the [REDACTED] is unclear No transmission requested on BPA's transmission system, and possible constraints could prevent firm capacity until 2016. However, conditional firm transmission service may be available. Possible interconnection costs with [REDACTED] Project assumes [REDACTED] capacity factor, higher than most biomass plants. Failure to meet this may cause developer to adjust pricing.</p>	<p>Not selected</p> <p>Project unlikely to meet development schedule due to air permitting issues. Change in schedule likely to impact pricing. No transmission secured</p>	
<p>10086</p> <p>Levelized cost: [REDACTED] MWh Portfolio benefit ratio: (0.151) Portfolio benefit: (\$14.6 mil)</p> <p>Ownership offer Biomass-operating</p>	<p>Operating facility with no development risk Reliable energy source with ability to meet capacity need</p>	<p>Project economics are not as favorable as alternatives. Unknown history of plant equipment and no guarantees provided. Fuel supply not secured. Plant has had limited operations as a biomass facility and some equipment may not be appropriately sized for biomass. Plant site may not be large enough to support stockpiling biomass without use of adjacent lumber mill. Transactions costs likely to be high for [REDACTED] MW facility. Local opposition to the project has resulted from coal use as fuel source for the project Transmission from Montana requires wheels on NorthWestern Energy's and BPA's transmission systems; may not be sufficient firm transmission for full resource capacity (only 10 or [REDACTED] MW secured on NorthWestern Energy transmission system for delivery to BPA transmission system)</p>	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. Project does not have demonstrated operational history as a biomass facility, and project equipment and site may not be sized properly for biomass. No fuel supply secured. Project built with used equipment with unknown warranties. History of community opposition.</p>	

REDACTED VERSION

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
10058 5-year PPA Biomass development	Levelized cost: n/a Portfolio benefit ratio: n/a Portfolio benefit: n/a		<ul style="list-style-type: none"> Incomplete proposal. Early in conceptual stage; no site selected; unable to evaluate quantitatively, or from a transmission, environmental and permitting, community or real estate perspective. requires a PPA prior to starting any development. 	<p>Not selected</p> <p>Proposal is conceptual and no pricing or offer structure was submitted because of the very early stage development of the project.</p>
10053 ID Unbundled REC product 6 of 8 facilities operating Offer volume varies for vintage yrs 2011-2018	Option 2 (best of Options 1-3): Levelized cost: n/a Portfolio benefit ratio: (1.725) Portfolio benefit: (\$2.7 mil)	<ul style="list-style-type: none"> RECs to be sourced from existing facilities, six of which are already operational Annual REC volume is relatively small but not insignificant Accomplished counterparty with significant experience/accomplishments: 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. is listed in the supply matrix included with this proposal; proposal received from is for the entire REC output of the facility into the RFP as a stand-alone offer 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives.</p>
10122 OR 20-year PPA Solar-PV development	Levelized cost: MWh Portfolio benefit ratio: (0.432) Portfolio benefit: (\$16.3 mil)	<ul style="list-style-type: none"> Experienced development team with solid development plan Land for project and expansion under option 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. Transmission costs are unclear. No interconnection studies have been completed. Interconnection with BPA typically takes up to 2 years, putting the commercial online date at risk. No transmission service has been requested. Project has had short period of data collection for energy resource. Proposed equipment may be difficult to obtain to meet proposed commercial online date (model identified appears to be sold out through 2010). Proposed equipment is relatively new model of PV panel, but with reputable manufacturer. Permitting process appears to be behind schedule for completion by proposed commercial online date. 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. Project unlikely to achieve commercial online date due to BPA interconnection process. No transmission secured.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10080</p> <p>Counties, MT 20-year PPA Wind development</p>	<p>Levelized cost: \$ [REDACTED] /MWh Portfolio benefit ratio: (0.216) Portfolio benefit: (\$84.4 mil)</p>	<p>• Positive local support for the project with no identified local opposition</p>	<p>Project economics are not as favorable as alternatives. High Montana to PSE transmission cost; two wheels required on NWE and BPA Transmission unsecured – unlikely to be secured by proposed commercial online date Unrealistic construction schedule (during winter 2010-2011) Poor wind resource data provided (only one met mast, short record of resource performance; no independent study); this creates significant price risk and may subject the project to financing risks. Sited outside WA RPS zone; must be shipped real time to PSE, requiring absorption into PSE's balancing authority and resulting in fewer alternatives for integration Counterparty is a small developer; questionable credit quality</p>	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. No transmission secured. Wind resource assessment may subject the project to financing risks.</p>
<p>10100</p> <p>Ownership offer Wind development</p>	<p>Levelized cost: \$ [REDACTED] /MWh Portfolio benefit ratio: (0.040) Portfolio benefit: (\$7.1 mil)</p>	<p>• No identified local opposition</p>	<p>Project economics are not as favorable as alternatives. Turbine technology is not yet in commercial operation. This turbine has not been vetted, certified by an independent firm. It has no proven track record and is an immature technology. Not financeable. PSE would not have full development flexibility and control of the value chain. Requires Turbine Supply Agreement for [REDACTED] turbine wind turbines and development agreement with [REDACTED] turbine deliveries are required without certainty of development timing Development cost risks: BPA interconnection and transmission costs unknown, fed tax incentives expire 12/31/2012 Schedule risks: very early stage development with uncertain site control, permitting, interconnection and transmission; requires wind turbine deliveries by 6/1/2012 BPA transmission unsecured; preliminary flowgate analysis identified impacts to Cross Cascade South flowgate (55 MW) BPA interconnection request withdrawn; final system impact and facilities studies incomplete Insufficient wind data and resource assessment. Site control not completed; only 70% of wind turbine locations are currently under site control [REDACTED]</p>	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. Turbine technology is unproven and may not be financeable. The offer of purchasing development rights requires PSE to enter into development agreement with [REDACTED] turbine supply agreement, and O&M agreement, which gives PSE little to no control over development or value chain. The schedule risks indicate that the project will not meet the federal tax incentives deadline. No transmission secured.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10136</p> <p>20-year PPA Wind development</p>	<p>Levelized cost: \$ [REDACTED] /MWh Portfolio benefit ratio: (0.200) Portfolio benefit: (\$51.1 mil)</p>	<ul style="list-style-type: none"> Seller states it will provide a parent guarantee and possibly a letter of credit Site is in advanced stages of development; land is optioned and both major permits have been acquired; advanced stage of Turbine Supply Agreement negotiations Wind resource confirmed by a third party 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. Transmission from MT Mountain requires wheels on NorthWestern Energy's and BPA's transmission systems, which results in high overall costs. Project is outside Washington state PPS zone; would have to be shipped real time to PSE territory; PSE would have to bring project into its control area, which comes with additional cost and provides fewer integration alternatives Construction schedule designed for a commercial online date of December 1, 2012, may not be realistic. Moderate opposition from the community (177 oral and written comments from 21 people); concerns range from tourism impact to reduced property values; opposition has active legal representation) 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives.</p>
<p>10152</p> <p>20-year PPA Wind development</p>	<p>Levelized cost: \$ [REDACTED] /MWh Portfolio benefit ratio: (0.124) Portfolio benefit: (\$71.4 mil)</p>		<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. PSE is not sure that the developer can deliver as proposed. The project is an early stage development with an inexperienced developer. The developer seems to consider Colstrip to be PSE's system. The proposal may require a third transmission wheel Significant network upgrade required under NorthWestern Energy Large Generator Interconnection Agreement Only one met (lower used for wind resource assessment, which may not be reasonable to assess capacity factor. Interconnection Feasibility Study performed for only 200 MW Pricing subject to final Phase II development High presence of sensitive avian species and bats Sitings may impact [REDACTED] - will require consultation with [REDACTED] No permits secured to date Area already impacted by existing wind facilities; cumulative effect on public perception; increasing concerns about views, impact on avian and other wildlife 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. Price risk due to uncertainty of estimated costs and early stage development. Price assumes federal tax incentives, which expire in 2012, and development risks indicate that the proposed commercial online date of 2012 may not be feasible. Price is also subject to final Phase 2 development costs.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10049</p> <p>Levelized cost: \$ [REDACTED] MWh Portfolio benefit ratio: 0.0662 Portfolio benefit: (\$5.2 mil)</p> <p>20-year PPA Wind operating</p>	<p>Operating facility with no development risk Seller states it has an A3 rated parent company Ability to provide reactive power control</p>	<p>Project economics are not as favorable as alternatives. Commercial terms with regard to availability guarantees and associated penalties are less favorable than other RFP alternatives. The proposal is unclear whether the counterparty would be the parent company or the subsidiary. Accordingly, it is unclear if the parent company will provide a parent guarantee if the counterparty is the subsidiary. No secured transmission from BPA to PSE for an estimated commercial online date of January 1, 2011; no service request submitted</p>	<p>Project economics are not as favorable as alternatives. Proposed commercial terms are not as favorable as alternatives. No transmission secured. Lack of proposal data.</p>	<p>Not selected</p>
<p>10148</p> <p>Levelized cost: \$ [REDACTED] MWh Portfolio benefit ratio: 0.001 Portfolio benefit: \$0.3 mil</p> <p>WA Ownership offer Wind development</p>	<p>Project is burdened by significant pushback due to its location within the site line of the [REDACTED] community; two county permit processes may present challenges; going to EFSEC Turbine technology is not yet in commercial operation. This turbine has not been vetted and certified by an independent firm. It has no proven track record and is an immature technology and may not be financeable. Project economics are not as favorable as alternatives. Data quality is insufficient to have confidence in the results. PSE would not have full development flexibility and control of the value chain. Requires Turbine-Supply Agreement for [REDACTED] turbine deliveries are required without certainty of development timing Development cost risks: BPA interconnection and transmission costs unknown; federal tax incentives expire on December 31, 2012 Schedule risks: very early stage development with uncertain site control, permitting, interconnection and transmission; requires wind turbine deliveries by June 1, 2012. No interconnection or transmission requests in the queue; transmission feasibility will require both the West of McNary and I-5 Corridor Reinforcements projects Insufficient wind data and wind resource assessment. Site control not completed; only 73% of turbine locations are under site control</p>	<p>Project economics are not as favorable as alternatives. Turbine technology is unproven and may not be financeable. The offer of purchasing development rights requires PSE to enter into development agreement with [REDACTED] turbine supply agreement, and O&M agreement, which gives PSE little to no control over development or value chain. The schedule risks indicate that the project will not meet the federal tax incentives deadline. No transmission secured.</p>	<p>Not selected</p>	<p>Not selected</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10096</p> <p>MT 20-year PPA Wind development 75 MW</p>	<p>Levelized cost: n/a</p> <p>Portfolio benefit ratio: n/a</p> <p>Portfolio benefit: n/a</p>	<p>Prior commercial success in negotiations with [REDACTED]</p> <p>Assumed mature stage of development (land secured, DEIS complete, LGIA executed)</p> <p>Project generally has community support</p>	<p>Project is located in the Midwest Reliability Organization. PSE is unable to move the power to the Western Electricity Coordination Council and PSE's territory.</p>	<p>Not selected</p> <p>Cannot deliver to PSE – outside of the Western Electricity Coordination Council.</p>
<p>10150</p> <p>Ownership offer Wind development</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: (0.063)</p> <p>Portfolio benefit: (\$11.1 mil)</p>	<p>Project economics are not as favorable as alternatives</p> <p>High transmission cost from Montana</p> <p>Development risk due to preferences for Suzlon wind turbines that affect project capacity and layout, real estate control, no transmission requests filed, and the Large Generator Interconnection Agreement dates may be unrealistic.</p> <p>Proposal assumptions are based on Suzlon wind turbines, which PSE would not currently use.</p> <p>The developer is unlikely to meet the proposed commercial online date because of transmission issues. The developer is relying on completion of Colstrip transmission projects to obtain capacity, but Colstrip transmission projects are unlikely to be complete by the commercial online date.</p> <p>No wind resource data provided</p>	<p>Project economics are not as favorable as alternatives. Small project located in remote Montana. Successful completion of development at proposed pricing is uncertain with information provided. No transmission secured. Lack of proposal data.</p>	<p>Not selected</p>
<p>10014</p> <p>Joint ownership offer Wind development</p>	<p>Levelized cost: [REDACTED] MWh</p> <p>Portfolio benefit ratio: 0.144</p> <p>Portfolio benefit: \$28.3 mil</p>	<p>Project economics are favorable when compared to alternatives. The economics are based on a bid that provided very few details about cost and projected net capacity factor, which left most cost assumptions to PSE's judgment.</p> <p>Proposal states that counterparties will post warranties and performance guarantees and bonds but does not indicate the identities of the counterparties.</p>	<p>Proposal did not provide project pro forma with cost details, which leaves significant pricing uncertainty.</p> <p>The proposal requires Clipper Liberty turbines but provided no cost information associated with these turbines.</p> <p>Proposal assumes a turbine availability inconsistent with past performance. Based on operating history, DNV-GEC believes that this turbine carries a higher risk of significant component failures caused by design and/or manufacturing errors.</p> <p>PSE would be majority owner of the project but would not have project control.</p> <p>Ownership structure is complex for a small project. Project finance may be difficult because the different parties may seek different financing vehicles.</p> <p>[REDACTED]</p> <p>No progress made with regard to permitting (EFSEC or Conditional Use Permit)</p> <p>It is unclear how much of PSE's share of the project will be available in 2013</p>	<p>Not selected</p> <p>Lack of proposal detail and cost data left most cost assumptions to PSE, creating significant economic uncertainty. The complexity of the commercial structure adds additional cost risk and makes execution uncertain. Turbine technology carries risk. No transmission secured</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10004</p> <p>Canada -50-year PPA Wind development</p>	<p>Levelized cost: n/a Portfolio benefit ratio: n/a Portfolio benefit: n/a</p>	<p>Advanced stage of development, which reduces development risk. Commercial terms are reasonable. Completed all necessary permitting and assessments to proceed.</p>	<p>It is unclear if a valid proposal exists for this project. The developer included no pricing or deal structure for PSE to evaluate. Offer to PSE appears to be subject to the outcome of the BC Hydro's Call for Power. If nothing comes of that, then a deal may be offered to PSE. Developer does not have a track record of experience in the wind industry; most of the team came on board within the last couple of years. Complex and costly transmission upgrades to bring power from British Columbia to PSE's territory Permitting process for offshore wind is extensive. O&M associated with the project presents unique challenges (undersea cables, etc.) PSE is unsure how to evaluate offshore wind. Indicative pricing for similar offshore wind projects with transmission suggests high costs; thus, it appears that, even assuming potentially higher capacity factors, the project economics would be favorable when compared to alternatives. Equipment has 20-year design life (due to the harsh conditions in which the equipment would operate), but proposal calls for a roughly 50-year PPA.</p>	<p>Not selected Validity of offer in question due to developer's submission to BC Hydro's Call for Power. No offer or price submitted in proposal to evaluate.</p>
<p>10105</p> <p>Ownership Wind development</p>	<p>Levelized cost: [REDACTED] MWh Portfolio benefit ratio: (0.304) Portfolio benefit: (\$20.5 mil)</p> <p>Levelized cost: [REDACTED] MWh Portfolio benefit ratio: (0.191) Portfolio benefit: (\$14.2 mil)</p>	<p>Project economics are not as favorable as alternatives The proposal would require transmission service on both BPA's and NorthWestern Energy's transmission systems, which may pose constraints on two flow gates and result in curtailments. No transmission requests submitted. Small facility size (two sites an hour apart) and distant location would require a third-party operator with potentially high incremental costs. Turbine selected (3 MW Vestas) may not be suitable for the site. Wind data is incomplete due to sensor failures. Some potential for local opposition from residents in [REDACTED] Some potential for local opposition related to roads in [REDACTED]</p>	<p>Not selected Project economics are not as favorable as alternatives. No transmission secured.</p>	

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10120</p> <p>[Redacted]</p> <p>WA</p> <p>2 - 20-year PPA offers</p> <p>Wind development</p>	<p>Option 1:</p> <p>Levelized cost: [Redacted] MWh</p> <p>Portfolio benefit ratio: (0, 136)</p> <p>Portfolio benefit: (\$34.9 mil)</p> <p>Option 2:</p> <p>Levelized cost: [Redacted] MWh</p> <p>Portfolio benefit ratio: (0, 156)</p> <p>Portfolio benefit: (\$40.9 mil)</p>	<p>Developer states it would offer standard terms letter of credit from an A rated or better bank.</p> <p>The project generally has good community support.</p>	<p>Project economics are not as favorable as alternatives</p> <p>Price risk is greater than other alternatives, including the wind integration costs passed through to PSE at cost plus.</p> <p>The high capacity factor of [Redacted] percent is likely to be a gross rather than net capacity factor.</p> <p>The commercial terms are less favorable than other alternatives.</p> <p>Development schedule may be unrealistic (e.g., short wind data collection time, no turbine agreements in place, lack of real estate rights).</p> <p>Risk of curtailment on BPA's transmission system due to constraints.</p> <p>Wind resource assessment does not appear to be fully vetted (only two met towers)</p> <p>Selected Vestas turbine model is still in testing phase of development, which creates a risk that they may not perform as designed. This may call the development schedule into question.</p> <p>No permits obtained. The overlay passed by the county has been appealed by two separate appellants.</p> <p>No transmission secured.</p>	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. Proposed commercial terms are not as favorable as alternatives. The PPA offer presents price risk, including the wind integration costs passed through to PSE at cost plus. The proposed development schedule may be unrealistic. No transmission secured.</p>
<p>10015</p> <p>[Redacted]</p> <p>WA</p> <p>Ownership offer</p> <p>Wind development</p>	<p>Levelized cost: n/a</p> <p>Portfolio benefit ratio: n/a</p> <p>Portfolio benefit: n/a</p>		<p>Technology is commercially unproven. The proposal indicates that [Redacted] has only one other [Redacted]. There are no examples of this technology in commercial operation.</p> <p>The estimated cost of facility is approximately [Redacted].</p> <p>The project development is conceptual.</p>	<p>Not selected</p> <p>Prototype turbine technology with no demonstration of ability to deliver on either turbine technology or project development.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10147</p> <p>OR 20-year PPA Wind development</p>	<p>Levelized cost: \$ [REDACTED] /MWh Portfolio benefit ratio: (0.1117) Portfolio benefit: (\$02.7 mil)</p>	<ul style="list-style-type: none"> PSE is not aware of any major community opposition. 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. The proposed commercial online date is third quarter of 2014, which will not qualify for the current federal tax incentives. The proposal would require PSE to acquire 428 MW of transmission, which may not be feasible. The proposal would require significant and costly upgrades to interconnect with the BPA transmission system (4.3 miles to connect to the BPA transmission system) The project is in early stages of development (e.g., no permits filed, no turbine supply agreements, no interconnection, in system impact study phase, no transmission requested). Project pricing would be affected by final turbine supply and construction agreements. The assumptions used by the developer to develop pricing are unclear. The commercial terms offered are inconsistent with PSE's preferred terms. The project has potential schedule risk due to BPA interconnection timing. 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. Project carries price risk due to (i) uncertainty of estimated costs, (ii) early stage development, and (iii) the proposed commercial online date is third quarter of 2014, which will not qualify for the current federal tax incentives. The commercial terms offered are inconsistent with PSE's preferred terms.</p>
<p>10016</p> <p>WA 20-year PPA Wind development</p>	<p>Levelized cost: \$ [REDACTED] /MWh Portfolio benefit ratio: (0.118) Portfolio benefit: (\$20.3)</p>	<ul style="list-style-type: none"> PSE has had prior commercial success in negotiations with [REDACTED] The developer is sophisticated with a history of execution success. PSE has some confidence that the developer can meet its development schedule. The proposed commercial terms are competitive. The developer states that it will post a guarantee, letter of credit, or other credit support, as required. PSE is not aware of any major community opposition. 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. Prior PPA negotiations with [REDACTED] resulted in late negotiation stage price increases. The proposal failed to provide sufficient information to determine schedule risks related to Conditional Use Permit status. The proposal would require transmission service on both BPA's and Avista's transmission systems, which may pose constraints on two flow gates and result in curtailments. PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols. The developer has not secured transmission service or submitted service requests for full capacity. This exposes schedule risk for the proposed Commercial Operation Date of January 1, 2012. No third-party wind assessment. Avian issues associated with the Sand Hill crane, which may present a potential community issue. [REDACTED] 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. PPA costs are uncertain because the transmission provider to which the project interconnects has not established wind integration costs and/or protocols. Price certainty also requires additional information on interconnection schedule.</p>

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Project	Quantitative Findings	Qualitative Advantages (+)	Qualitative Risks (-)	Selection recommendation & Rationale
<p>10108</p> <p>2 PPA options WA Wind-operating</p>	<p>Option 1: Levelized cost: [REDACTED] MWh Portfolio benefit ratio: (0.305) Portfolio benefit: (\$7.2 mil)</p> <p>Option 2: Levelized cost: [REDACTED] MWh Portfolio benefit ratio: (0.250) Portfolio benefit: (\$27.9 mil)</p>	<ul style="list-style-type: none"> The project is an operating facility with no development risk. 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. The projected does not qualify for the Renewable Energy Credit multiplier of 1.2 for apprenticeship labor. The counterparty does not yet have the right to market the power - negotiations for the right to market the power are ongoing. If counterparty does obtain the right to market the power, any deal with PSE would be limited by the underlying contract. No flexibility for PSE to negotiate terms. The proposal would require PSE to carry operating reserves non-strategic for PSE. First offer would require full negotiations for only 10 MW. Second offer would not begin until 2022, which is outside scope of the RFP. 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. The counterparty does not yet have the right to market the power.</p>
<p>10162</p> <p>15-20 year PPA or BOT Wind pre-construction</p>	<p>Levelized cost: [REDACTED] MWh Portfolio benefit ratio: (0.196) Portfolio benefit: (\$59.8 mil)</p>	<ul style="list-style-type: none"> The developer states that it will offer credit support. The project is at an advanced stage of development, which reduces development risk. The construction schedule appears to be achievable. All environmental studies (other than avian) are complete; with permits secured or in final stages. 	<ul style="list-style-type: none"> Project economics are not as favorable as alternatives. The proposal provided insufficient detail to evaluate potential advantages and risks fully. For example, the proposal provided no capacity factor, no wind resource assessment, no layout, and no real estate information. The proposal would require transmission service on both BPA's and NorthWestern Energy's transmission systems. The developer has not secured transmission service. A preliminary flowgate analysis indicates that there will be impacts to major flowgates. It is unclear if transmission can be secured by the commercial online date. 	<p>Not selected</p> <p>Project economics are not as favorable as alternatives. No transmission secured. The proposal provided insufficient detail to evaluate potential advantages and risks fully.</p>

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Exhibit O

**Wind Turbine Generator
Selection and Due Diligence**

Exhibit O Wind Turbine Generator Selection and Due Diligence

This exhibit summarizes the Lower Snake River Wind Project, Phase I ("Phase I" or "Project") turbine selection and diligence process undertaken by PSE. The process involved the efforts of multiple PSE employees and external resources, spanned nine months, and ultimately resulted in PSE Energy Management Committee approval to negotiate exclusively with Siemens on the purchase of SWT-2.3-101 MW Wind Turbine Generators for the first phase of the Project.

A. Abbreviated Timeline of Events

In the fourth quarter of 2008, PSE and RES America Developments Inc, ("RES Development") agreed to commercial terms that resulted in PSE 50% ownership in the LSRWP in Southeast Washington. Shortly after consummating the Joint Development Agreement ("JDA") between the two companies, PSE and RES Development began requesting supply proposals from wind turbine vendors for the first 250 – 500 MW of project capacity. Throughout 2009, pricing on turbines fell as national and international demand for this equipment declined. In July of 2009, PSE purchased RES Development's remaining 50% interest in the LSRWP and subsequently short-listed four of the initial seven turbine candidates to continue further technical and financial due diligence. Over the eight-week period that followed, the PSE turbine selection team ("PSE Team") reviewed the technical and commercial details of the various proposals, conducted additional due diligence on the vendors, equipment, and proposals, and then generated analysis in order to select a Wind Turbine Generator ("WTG") supplier for the Phase I. In early October, the PSE Team convened with management to discuss qualitative and quantitative considerations and to decide on a recommended turbine supplier to negotiate exclusively with in order to finalize a turbine supply agreement to propose to the PSE Board of Directors. Siemens was the recommended firm. Figure 1 graphically details this process.

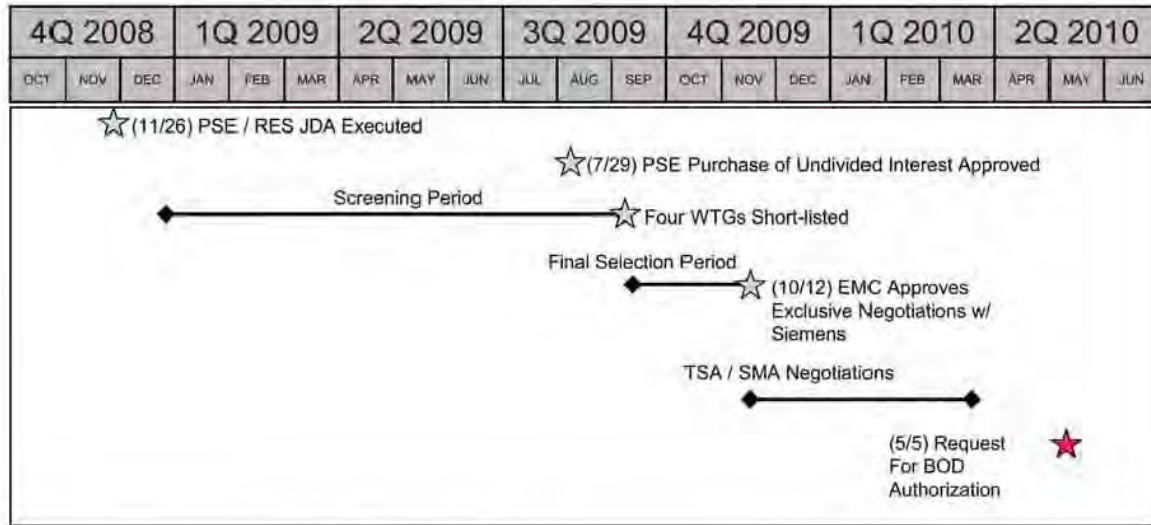


Figure 1. Wind Turbine Generator Selection Timeline

B. Wind Turbine Generator Vendors

PSE and RES Development solicited bids from [REDACTED] Siemens, [REDACTED]. These vendors submitted bids for seven turbine candidates:

Table 1. Candidate Turbines

Model	Supplier	Rating
[REDACTED]	[REDACTED]	[REDACTED]
SWT-2.3-101	Siemens Energy, Inc	2.3 MW
[REDACTED]	[REDACTED]	[REDACTED]

Initial bids were received in February 2009. Over the ensuing months PSE and RES Development sought to clarify terms and conditions, as well as inclusions and exclusions, from the different turbine proposals. Coinciding with this work, both parties also independently conducted analyses to select the top turbine candidates for a more thorough review and final analysis.

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C. Screening Period

During the screening period, analysis was undertaken to short-list a select number of turbine candidates. The purpose of the preliminary financial analysis was to determine which turbine candidates offered the lowest delivered cost of energy. The variables isolated for the purposes of this analysis were turbine price; balance of plant engineering, procurement, and construction costs; projected lifetime O&M expenses; and turbine output. Figure 2 details the methodology employed to screen the turbine candidates.

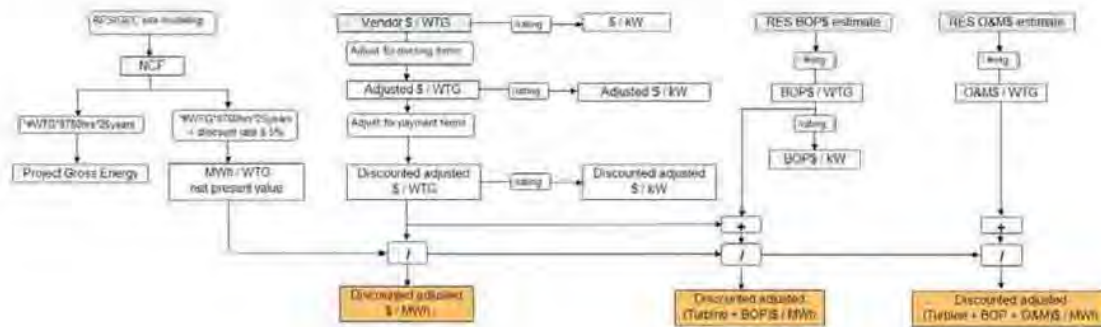


Figure 2. Screening Analysis Inputs and Outputs

Figure 3 presents the results of the screening analysis.

Energy Relative to Turbine Pricing/BOP Cost/O&M Agreements	
PROPOSALS	SIEMENS
Type	
Quoted Price per Unit + BOP + O&M // MWh	
Adjusted Price per Unit + BOP + O&M // MWh	
Disc Adj Price per Unit + BOP + O&M // MWh	

Figure 3. Screening Analysis Results

Results of this initial screening suggested both [REDACTED] turbine candidates, the Siemens SWT-2.3-101, and the [REDACTED] were financially plausible wind turbine generator alternatives for Phase I relative to the other turbine options.

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D. Final Selection Period

The final selection period process consisted of a thorough technical and financial review. The final review process spanned two months and is summarized in Figure 4.

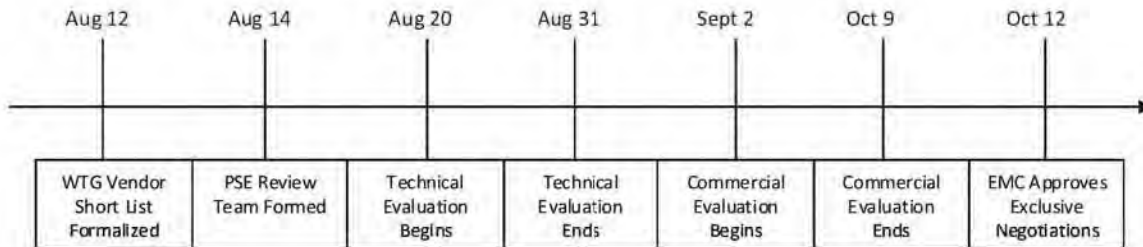


Figure 4. Final Selection Period Timeline

The analysis team was comprised of PSE employees across the organization and supported by external resources. The internal PSE team and outside resources are detailed in Figure 5.



Figure 5. Turbine Selection Team

Members of this team contributed different areas of expertise throughout the selection process. These contributions included generation estimates, turbine layouts, construction feasibility and costs, interconnection operability, service capabilities, and other assistance with technical and financial matters.

E. Technical Evaluation Process

In the final stage of technical due diligence, PSE compiled questions arising out of research and presentations occurring over the previous eight-month period. Each vendor was then given an opportunity to present a more detailed presentation of each turbine candidate followed by extensive in-person question-and-answer sessions. This iterative process allowed each member to formulate opinions on how well each turbine was able to meet the needs of PSE at Phase I. Some of the areas reviewed are highlighted in Table 2.

Table 2. Sample of Technical Review Areas

		Siemens	
Rating (MW)		2.3	
Rotor diameter (m)		101	
Specific rating kW/m ²		.29	
Cut-out wind speed (m/s)		25	
Rotor speed (rpm)		6 - 16	
Tip-speed (m/s)		32 - 85	
IEC class		II B ³	
Tower height (m)		80	
Average design wind speed (m/s)		8.5	
Max 10-minute gust (m/s)		42.5	
Max 3-sec gust (m/s)		59.5	
Temperature range (C)		-25 to 35 ⁴	
Power control		Pitch/PE	
Speed control		Variable	
Sound power level dBA		108	

^[1] [REDACTED] but additional detail on this configuration was not received as of evaluation.

^[2] The [REDACTED]

^[3] The standard version of the SWT-2.3-101 is designed for a 55 m/s gust; if a 60 m/s gust is expected, then a special version of the turbine can be provided.

^[4] Cold weather option

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F. Technical Evaluation Results

Following this formal technical evaluation process, the review team developed a rating methodology to assess the merits of each turbine supplier's proposal. The objective of this exercise was to capture the issues or concerns that were relevant to the long-term success of the Project as a whole. These concerns were grouped into six broad criteria:

Reliability Risk

- a) The potential for turbine or component failures within the 20-year design life
- b) The extent of component laboratory and field testing
- c) The status of turbine certification with a reputable firm

Performance Risk

- a) The chance that the turbine won't meet its specified power curve or target availability
- b) The demonstrated performance in similar wind regimes
- c) The turbine's ability to meet interconnection requirements

O&M Capabilities

- a) The manufacturer's ability to provide comprehensive service for 20 years
- b) The service organization's safety track-record
- c) Vendor control over major parts production

SCADA System

- a) The functionality and utility of the supervisory control and data acquisition system
- b) Wind Project power output and ramp-rate control
- c) Wind Project voltage/ VAR support capabilities

Maintainability Risk

- a) The anticipated risks associated with maintaining the equipment
- b) Crane requirements for major component replacements
- c) Direct access to the hub from the nacelle

Partnering

- a) The willingness of the manufacturer to work cooperatively with PSE during the service life
- b) Vendor efforts to continuously improve the customer value proposition
- c) Commitment to community relations

Table 3 summarizes the turbine candidate technical scores from all reviewers and shows the team consensus weighting. The Siemens SWT-2.3-101 had the highest average rating. The reviewers were consistent in rating Siemens higher than its peers, meaning that based on the criteria, the review team considered the Siemens SWT-2.3-101 to be the best choice for the LSRWP, Phase I. Five out of six of the reviewers rated the [REDACTED] in second place.

Table 3. PSE Team Technical Evaluation Results

Criteria	Weight	[REDACTED]	[REDACTED]	SWT101	[REDACTED]
Reliability Risk	25%	1.04	0.71	1.11	0.93
Performance Risk	20%	0.80	0.57	0.89	0.80
O&M Capabilities	15%	0.64	0.62	0.56	0.45
SCADA system	20%	0.57	0.57	0.86	0.60
Maintainability	10%	0.37	0.37	0.37	0.31
Partnering	10%	0.37	0.37	0.36	0.26
Totals	100%	3.79	3.22	4.14	3.35

In summary, when considering only the qualitative aspects of the turbine offerings the Siemens SWT-2.3-101 was considered superior relative to competitors.

G. Financial Evaluation Process

Immediately following the conclusion of the Technical Evaluation Process the turbine vendors were asked to update Phase I proposals to both refresh price as well as ensure bids were somewhat consistent for evaluative purposes. Each vendor was asked to provide information regarding material contract details such as:

1. Contract price
2. Payment terms
3. Delivery schedule
4. Liquidated damages
5. Contract inclusions and exclusions
6. Warranty term and coverage (minimum 2 years, with full coverage)

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7. O&M pricing
8. O&M term and coverage (minimum 5 years, with full coverage)

Turbine vendor equipment expenditures were combined with other capital cost assumptions including those incurred or anticipated for development rights, project development, project substation(s), interconnection and transmission upgrades, balance of plant, construction management, overhead, taxes, contingencies, and carrying costs. Next, vendor operation cost assumptions were added to anticipated PSE operations and maintenance expenditures, transmission costs, insurance, land royalties, property taxes, depreciation, net capacity factor, federal incentives, and REC sales to create a twenty-five year project proforma. Last, the project input assumptions were used to generate project revenue requirements, based on PSE's currently allowed rate of return, and ultimately a levelized cost. Each proposal was then comparable based on the cost of delivered energy. Figure 6 depicts this process.

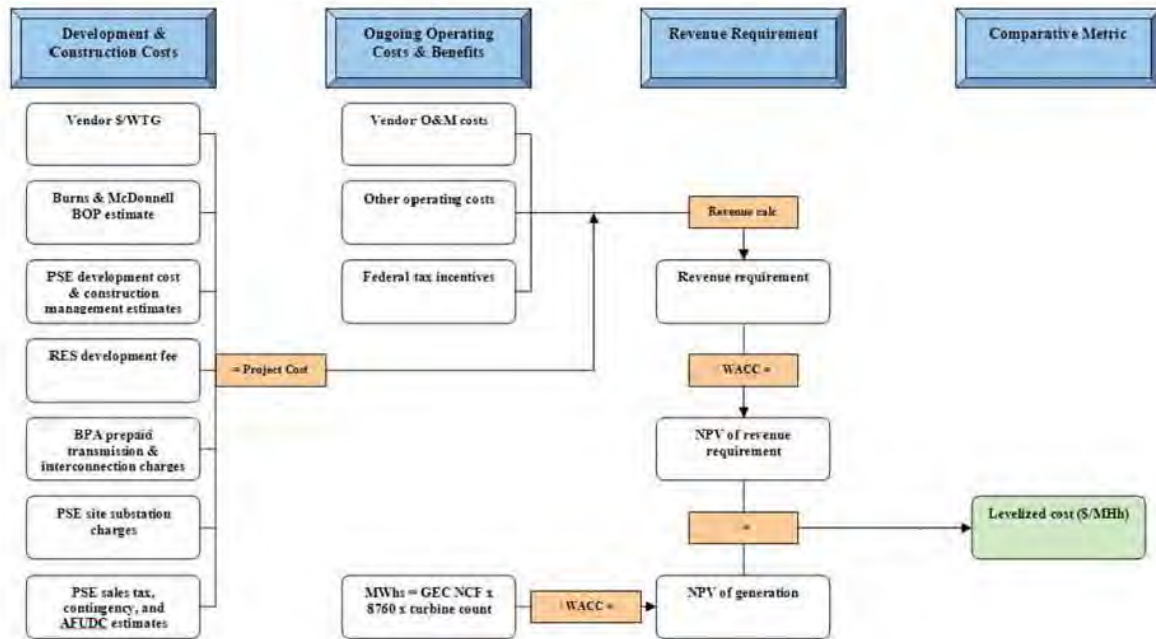


Figure 6. Proforma Inputs and Output

H. Financial Evaluation Results

While attempts were made to receive uniform vendor bids, inconsistencies still existed. To determine if PSE assumptions were driving vendor ranking, a sensitivity of key inputs was performed. Sensitivity analyses were conducted on the following key variables:

1. BOP estimates
2. Warranty cost normalization assumptions (to ensure duration was five years)
3. Vestas V90 / V100 composition
4. O&M cost normalization assumptions (to ensure duration was five years)
5. Annual energy production potential increases

Using levelized cost as the dependent variable, the only material assumption input was the potential increase to annual energy production. On October 8, 2009, PSE received final commercial terms from the short-listed turbine vendors. Base results from these submittals are summarized in Table 4.

Table 4. Financial Review Results Summary⁵**Base Scenario**

<u>Turbine Candidate</u>	<u>Lev Cost P1 (\$/MWh)</u>	<u>Rank</u>	<u>\$ Change To Tie 1st</u>
Siemens SWT101		1	0
		2	(1,547,235)
		3	(9,642,393)

Final base results had the Siemens SWT-2.3-101 ranking ahead of its competitors. All three vendors made guarantees of increased turbine output. The [REDACTED] guarantee had no impact on its relative ranking. Review of the [REDACTED] method for increasing output led the evaluation team to conclude energy increase by uprating (i.e. increasing the turbine nameplate capacity from [REDACTED] MW to [REDACTED] MW) the machine would lead to either fewer project turbines or an increased project capacity with larger BOP costs than currently contemplated. The team decided to heavily discount potential annual energy increases in the [REDACTED] scenario.

⁵ Results based on information current as of November 3, 2009, including preliminary DNV-GEC wind resource estimates.

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I. Turbine Recommendation

Based on review, discussion, qualitative and quantitative results, the PSE Team chose to recommend the Siemens' SWT-2.3-101 for the LSRWP, Phase I. The results of both the technical and financial analyses supported this decision. On October 12, 2009, Energy Management Committee members reviewed evaluative results and approved the Team's decision, effectively commencing the exclusive negotiations with Siemens for SWT-2.3-101 Wind Turbine Generators for Phase I.

Exhibit O-1

DNV-GEC Siemens SWT-2.3-101 Technical Review



Siemens SWT-2.3-101

Technical Review

DDRP0050-A

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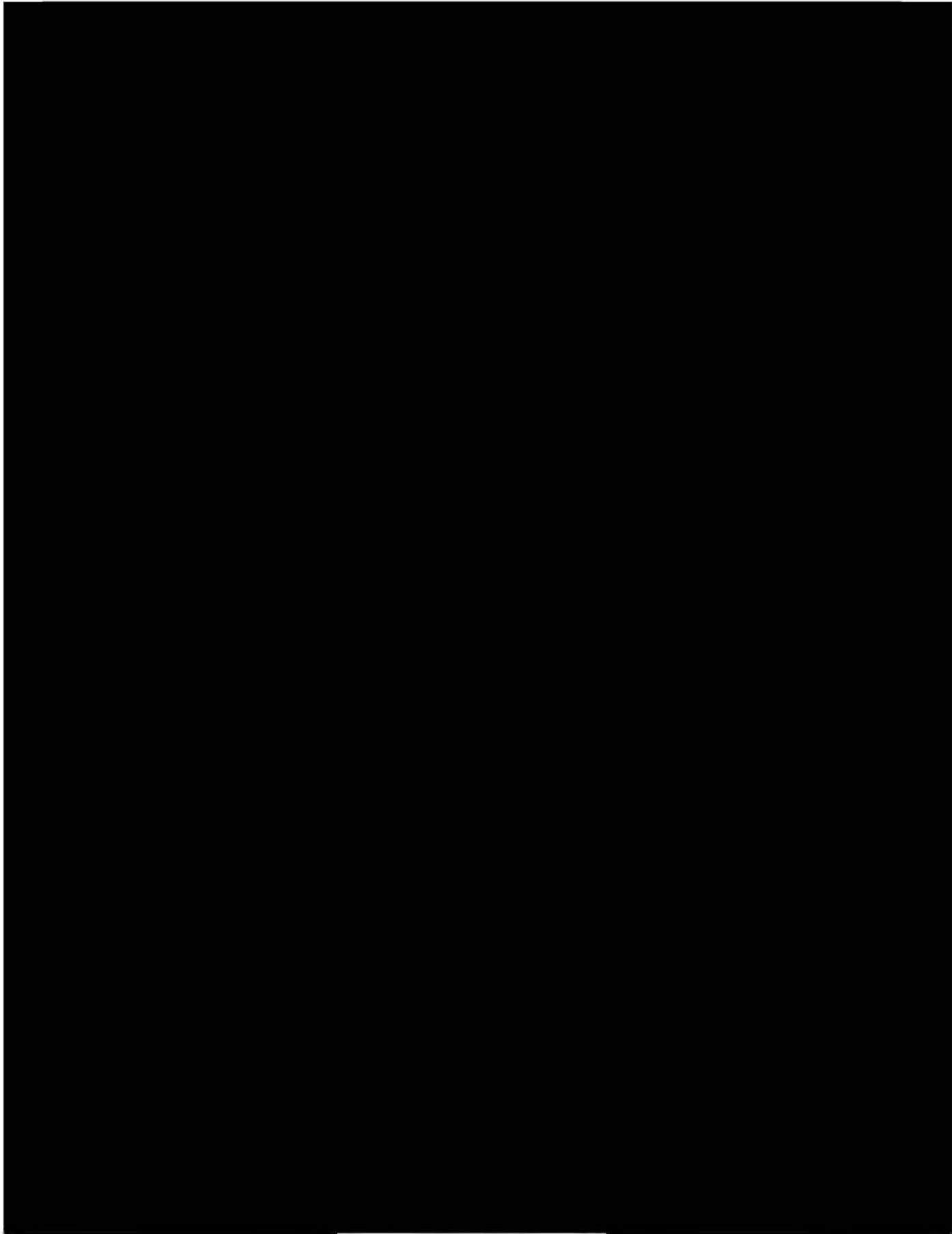
March 15, 2010

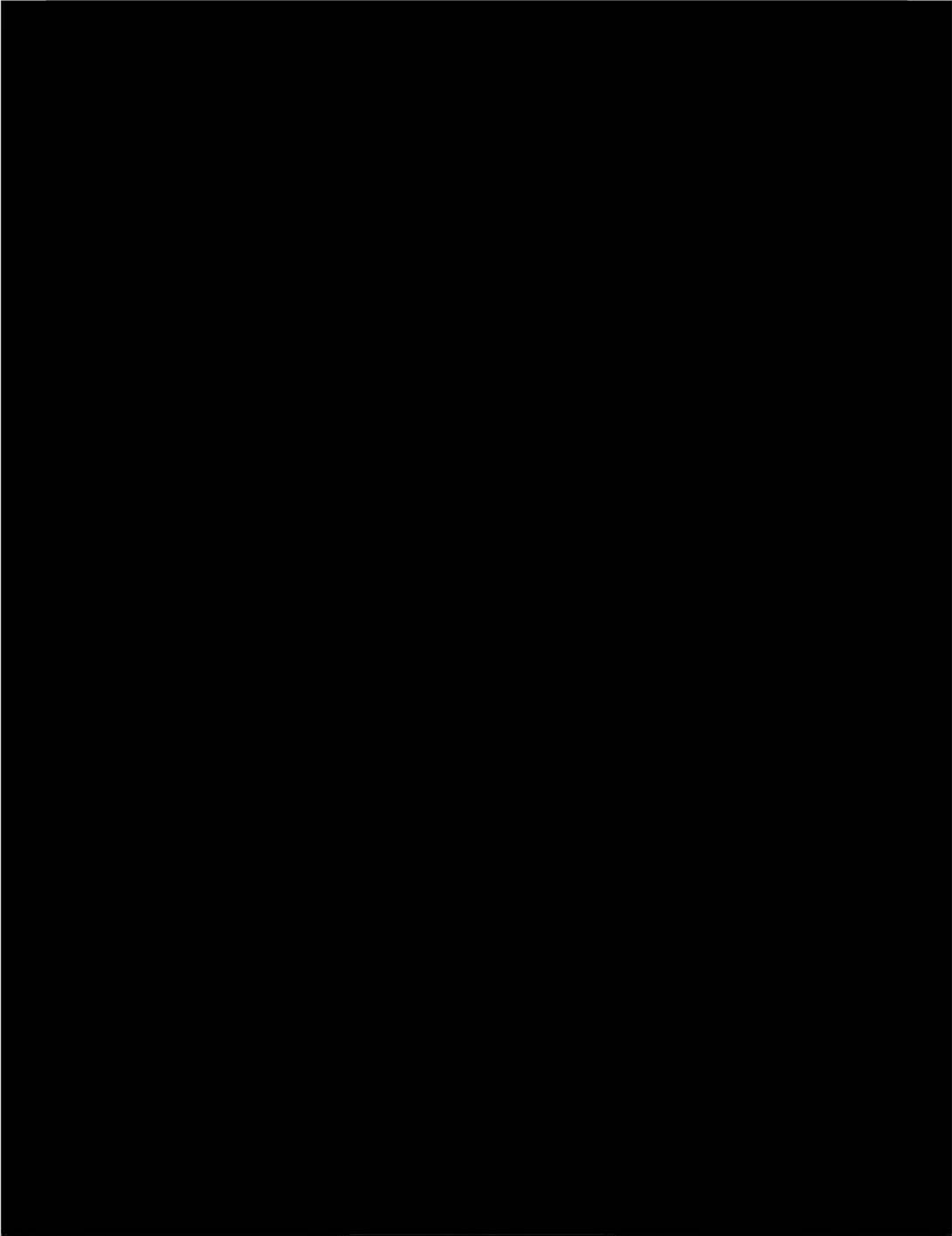
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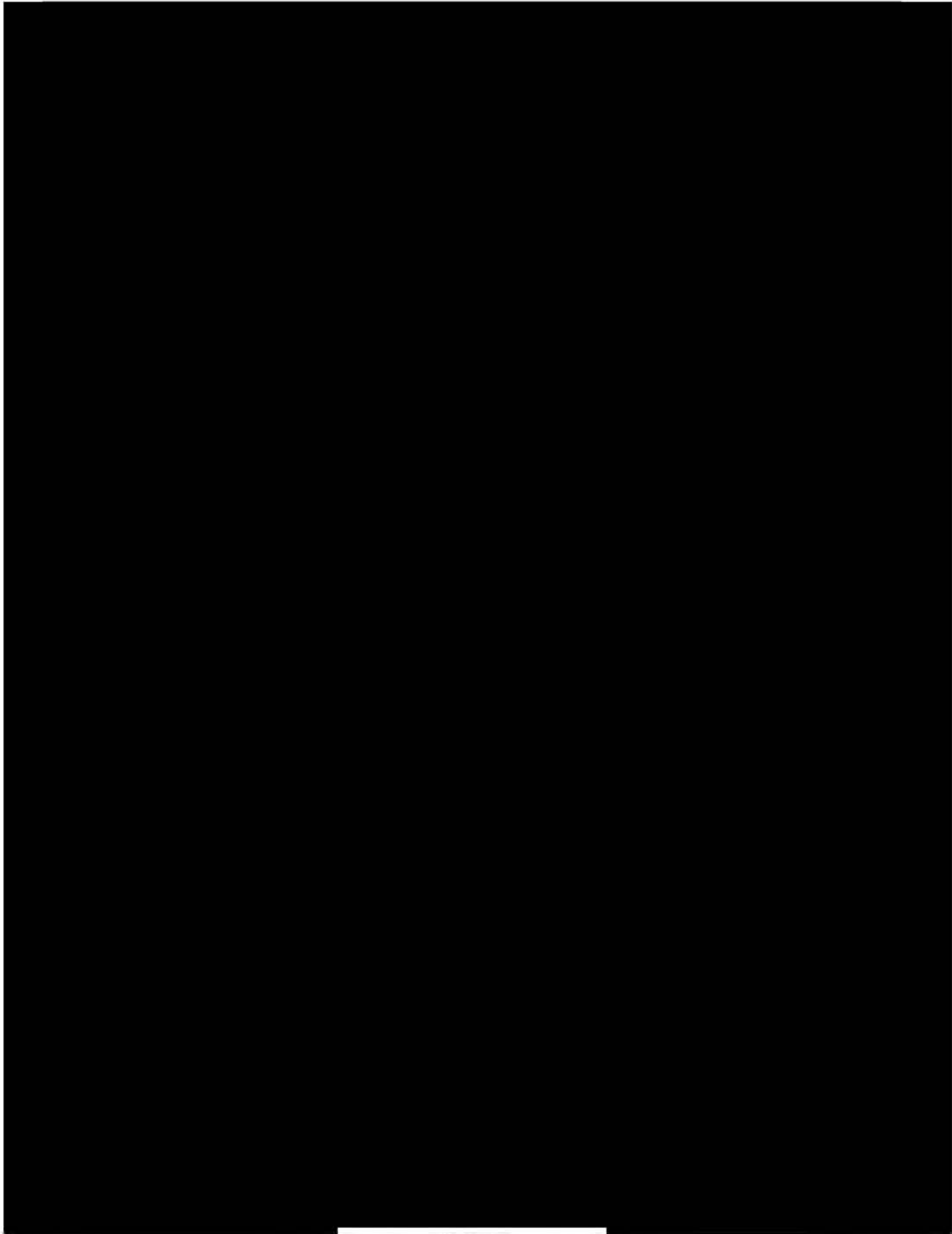
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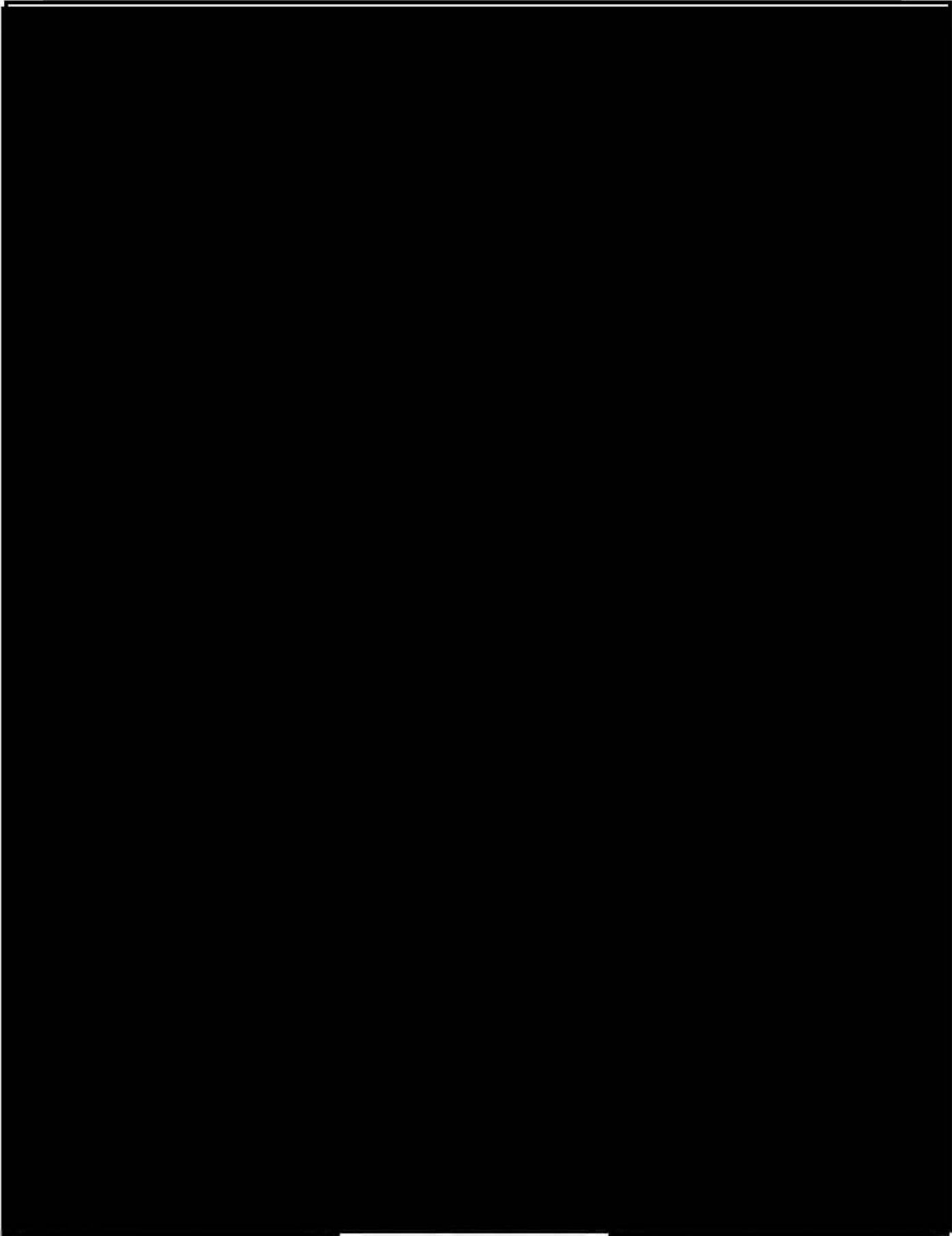


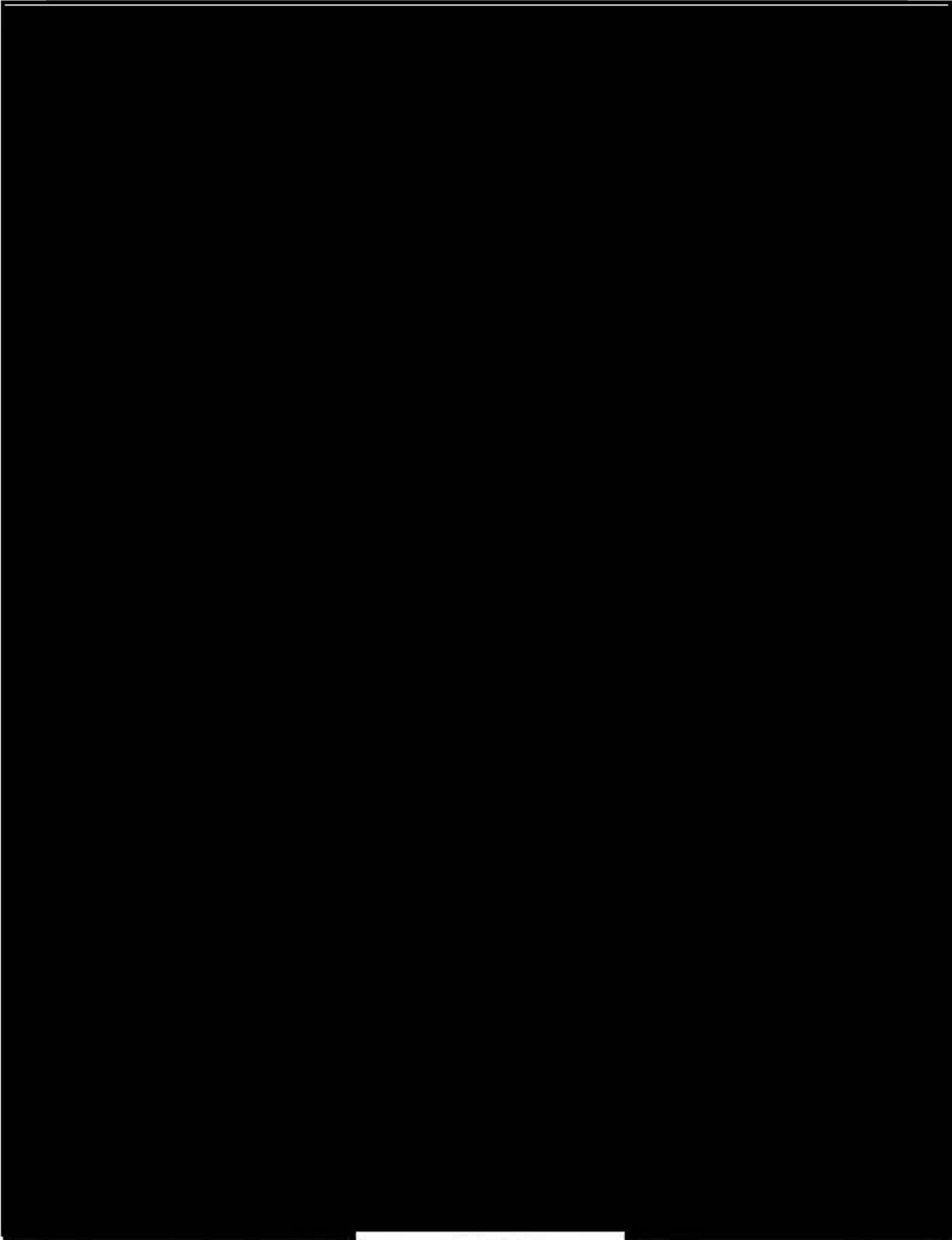




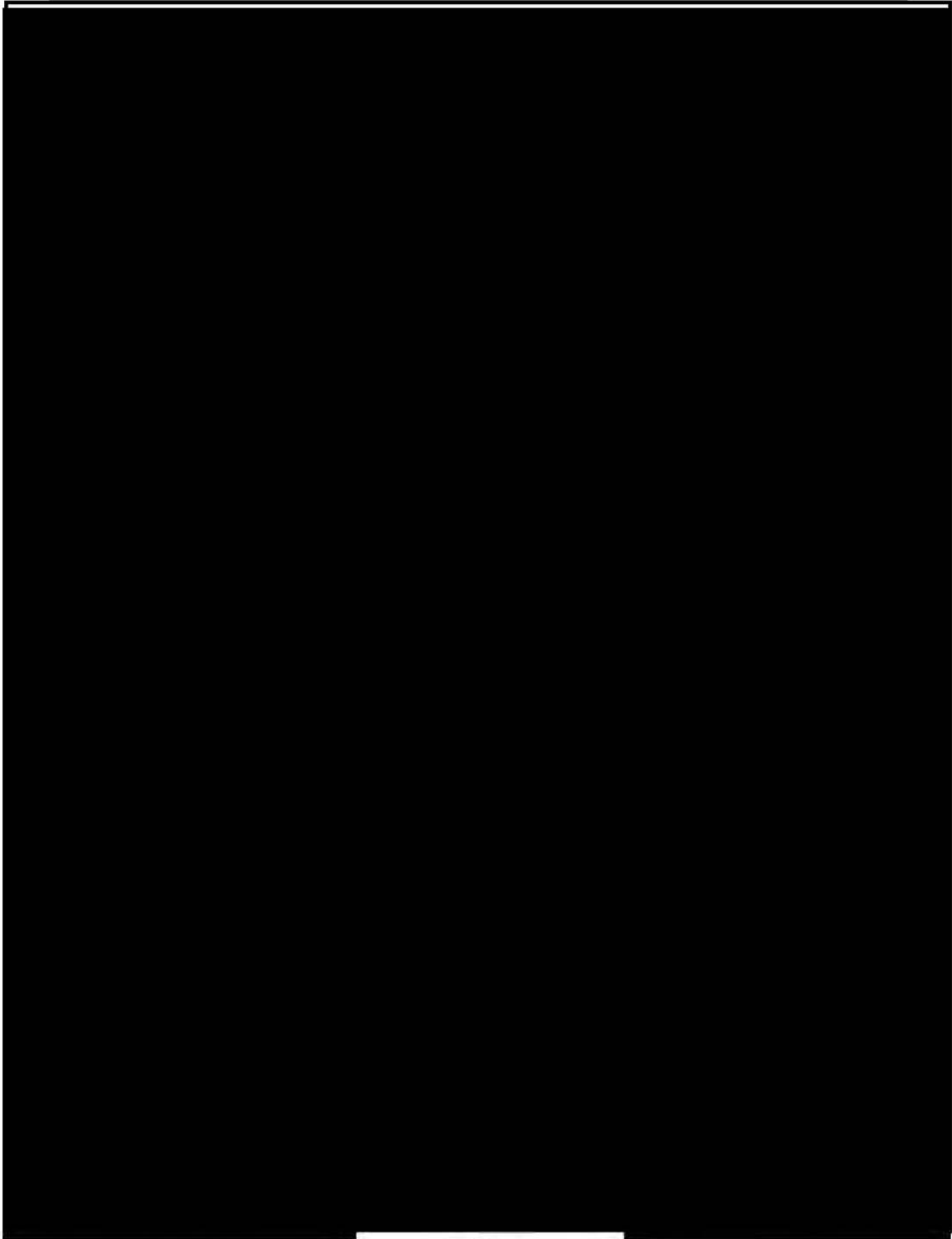


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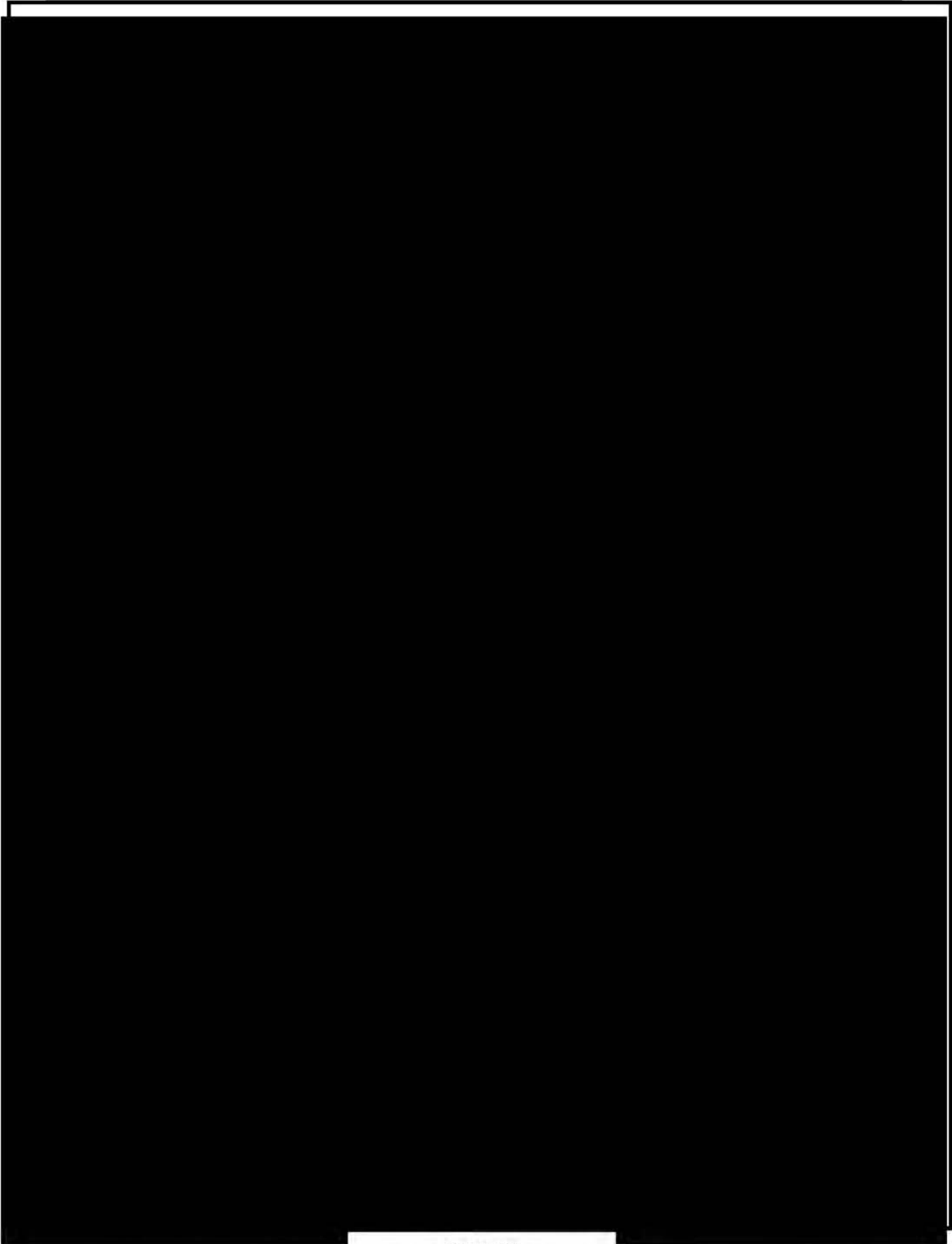




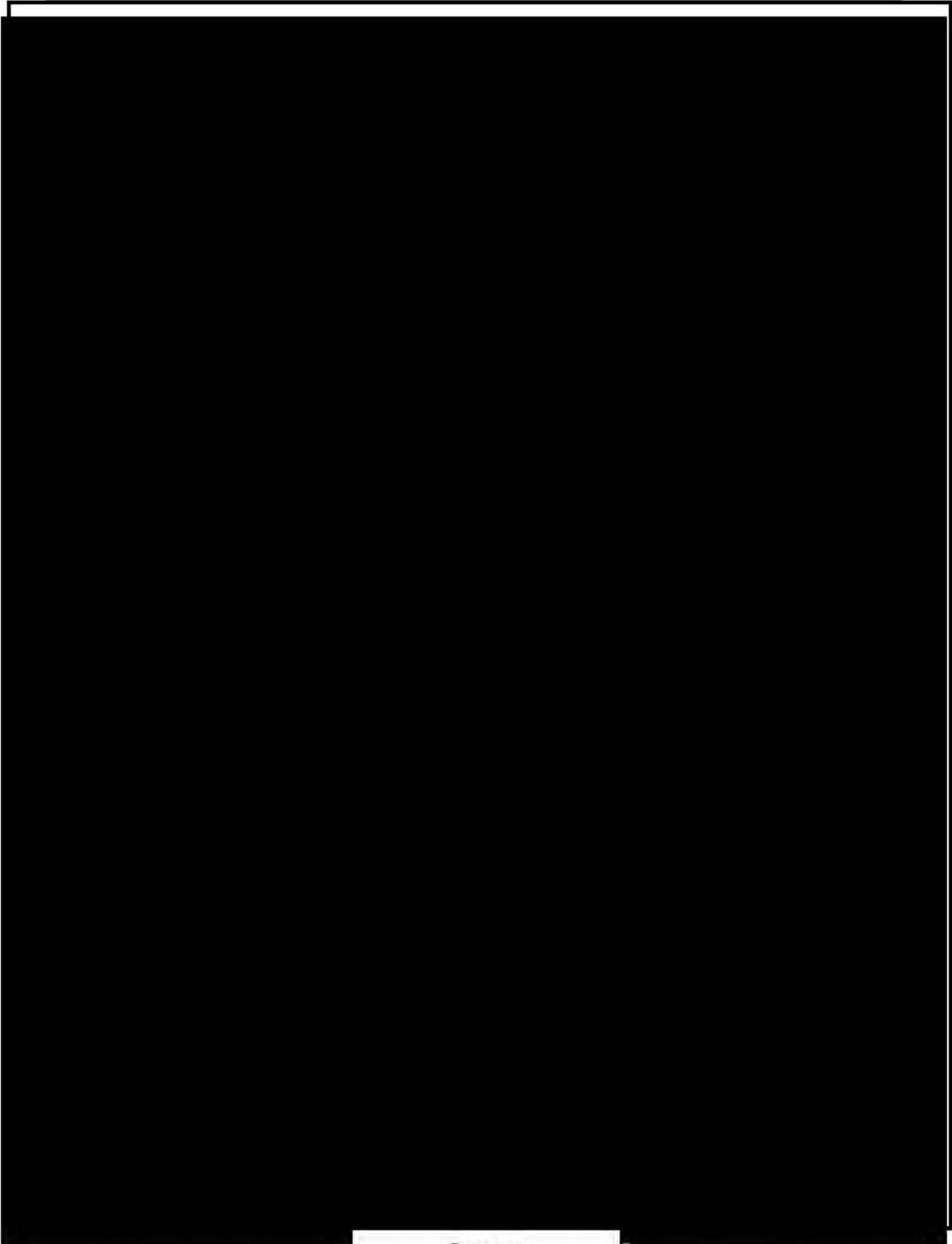
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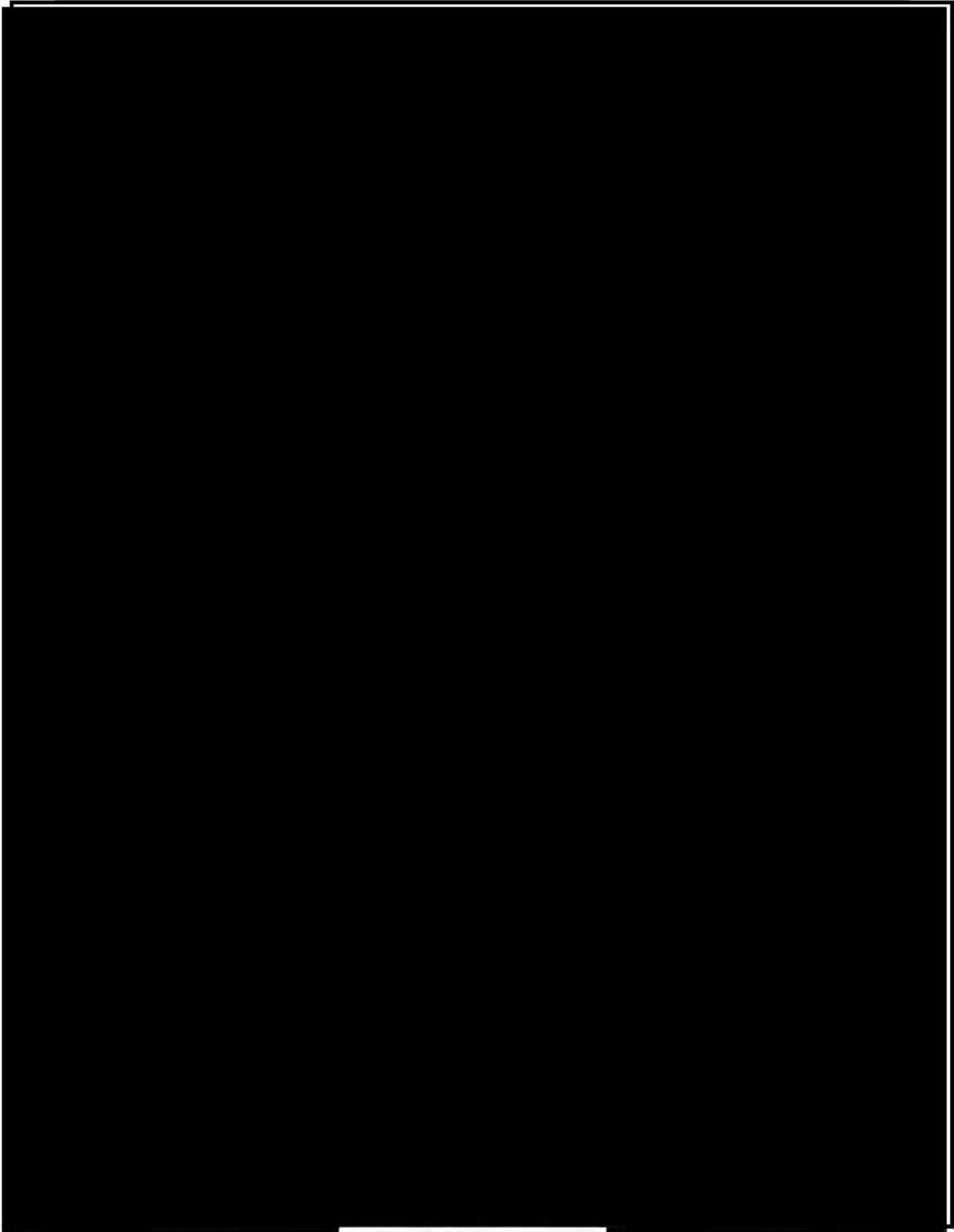
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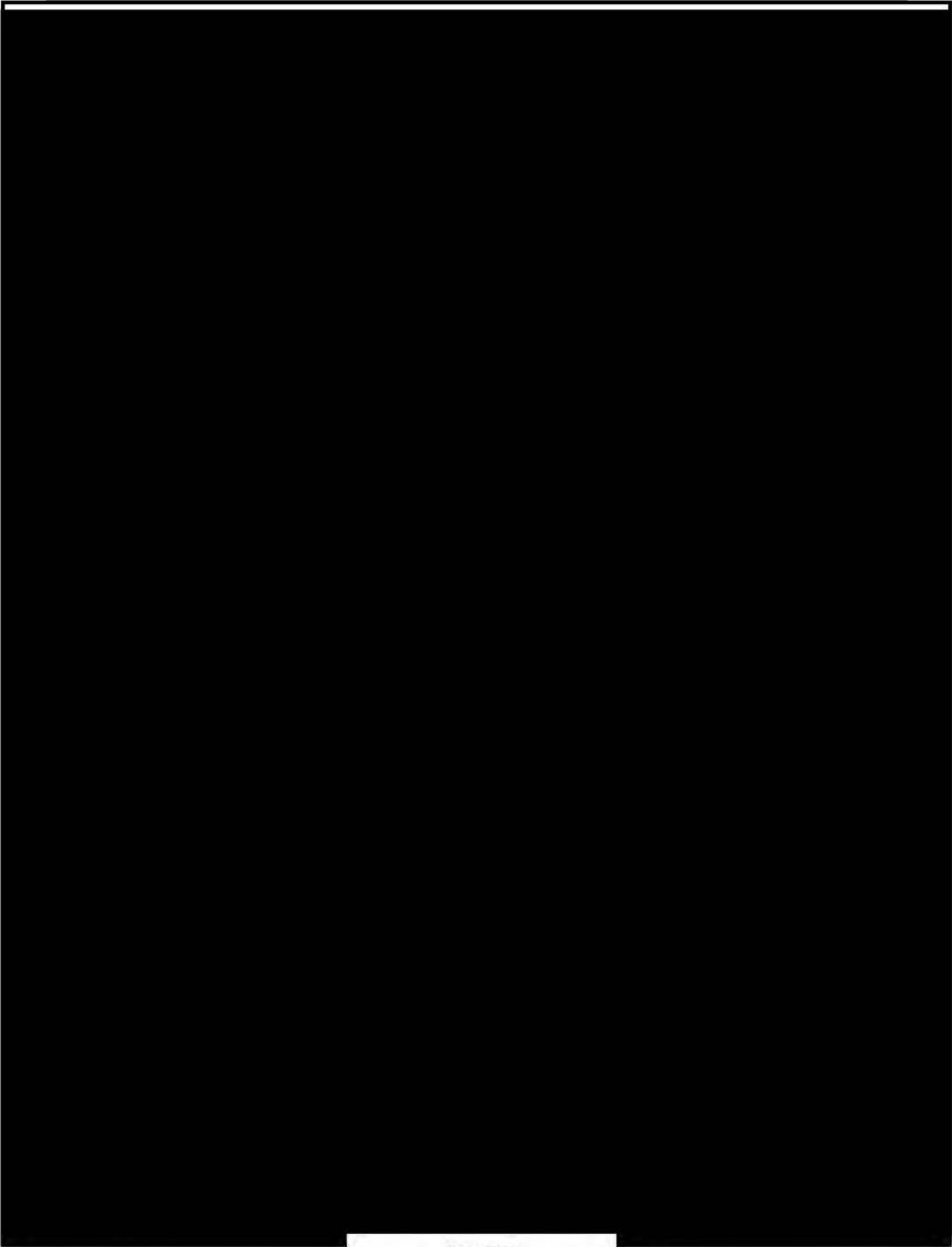
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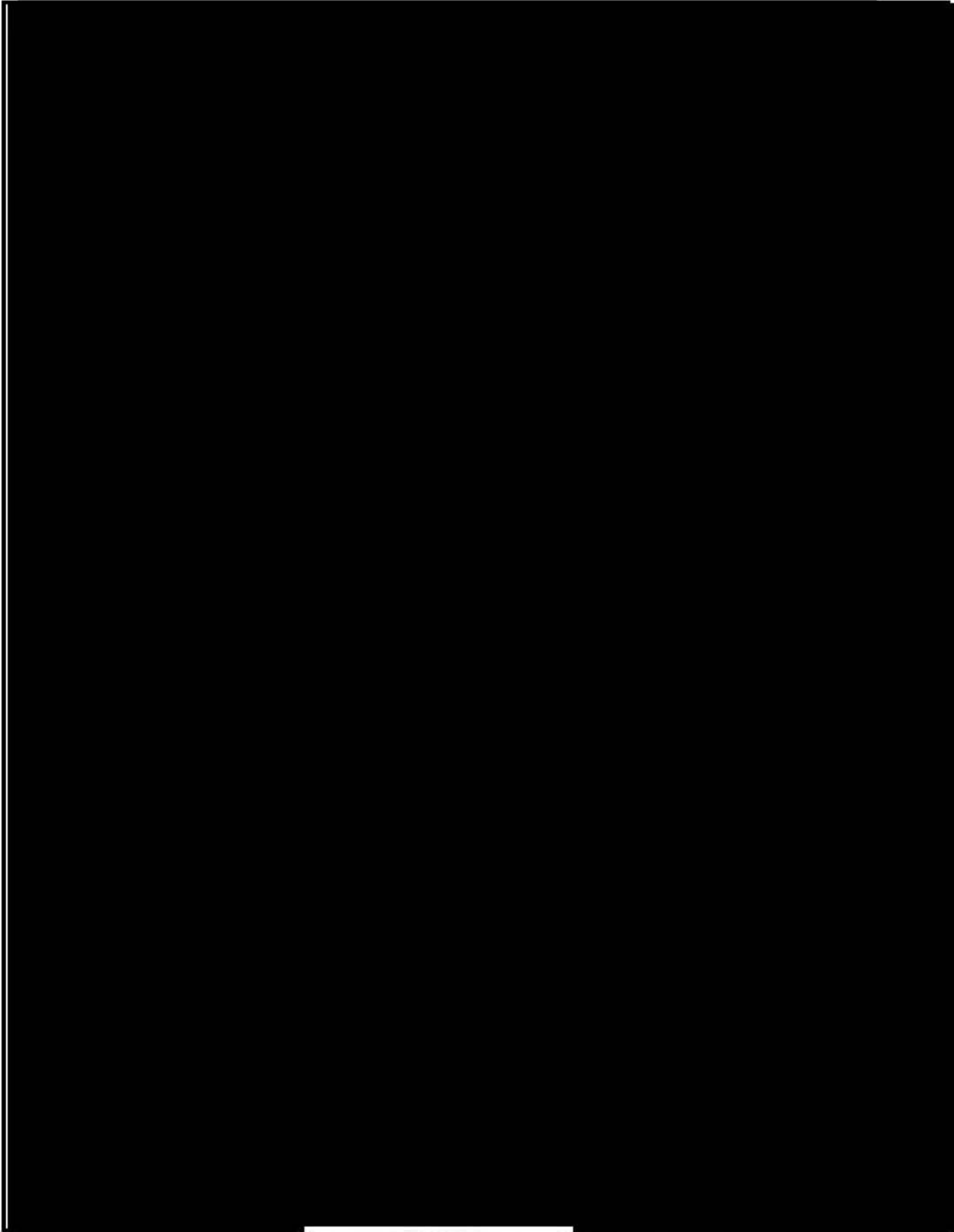
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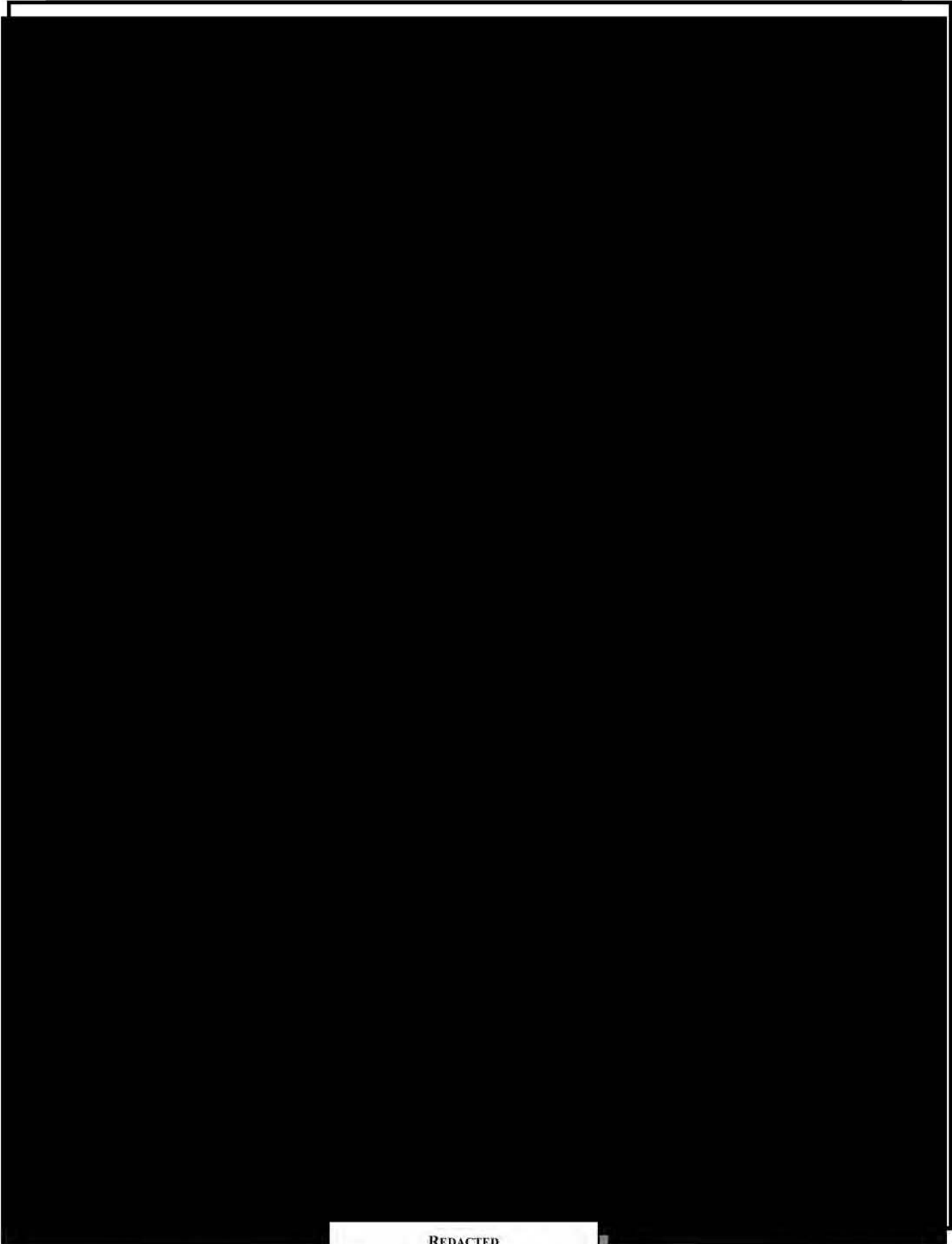
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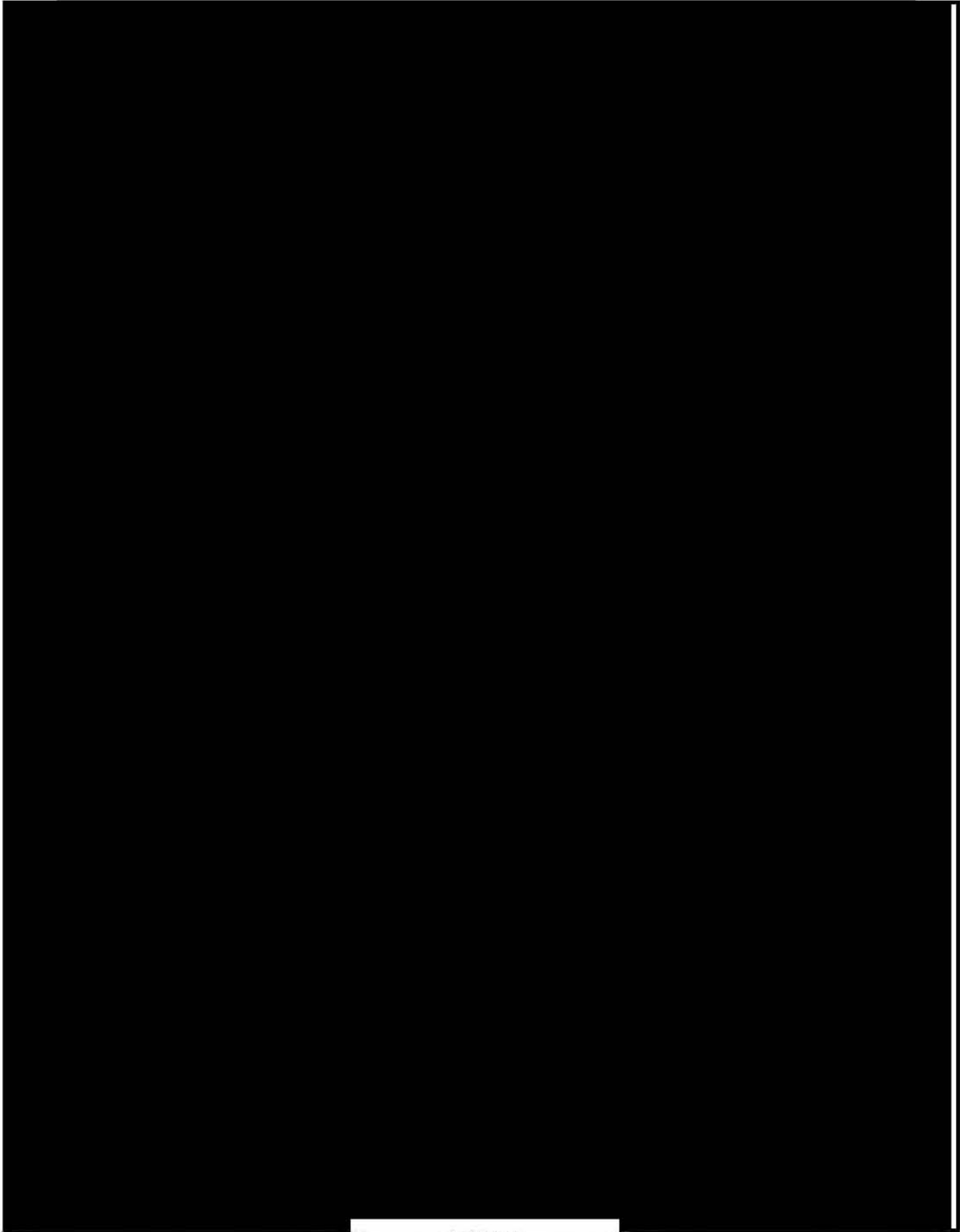
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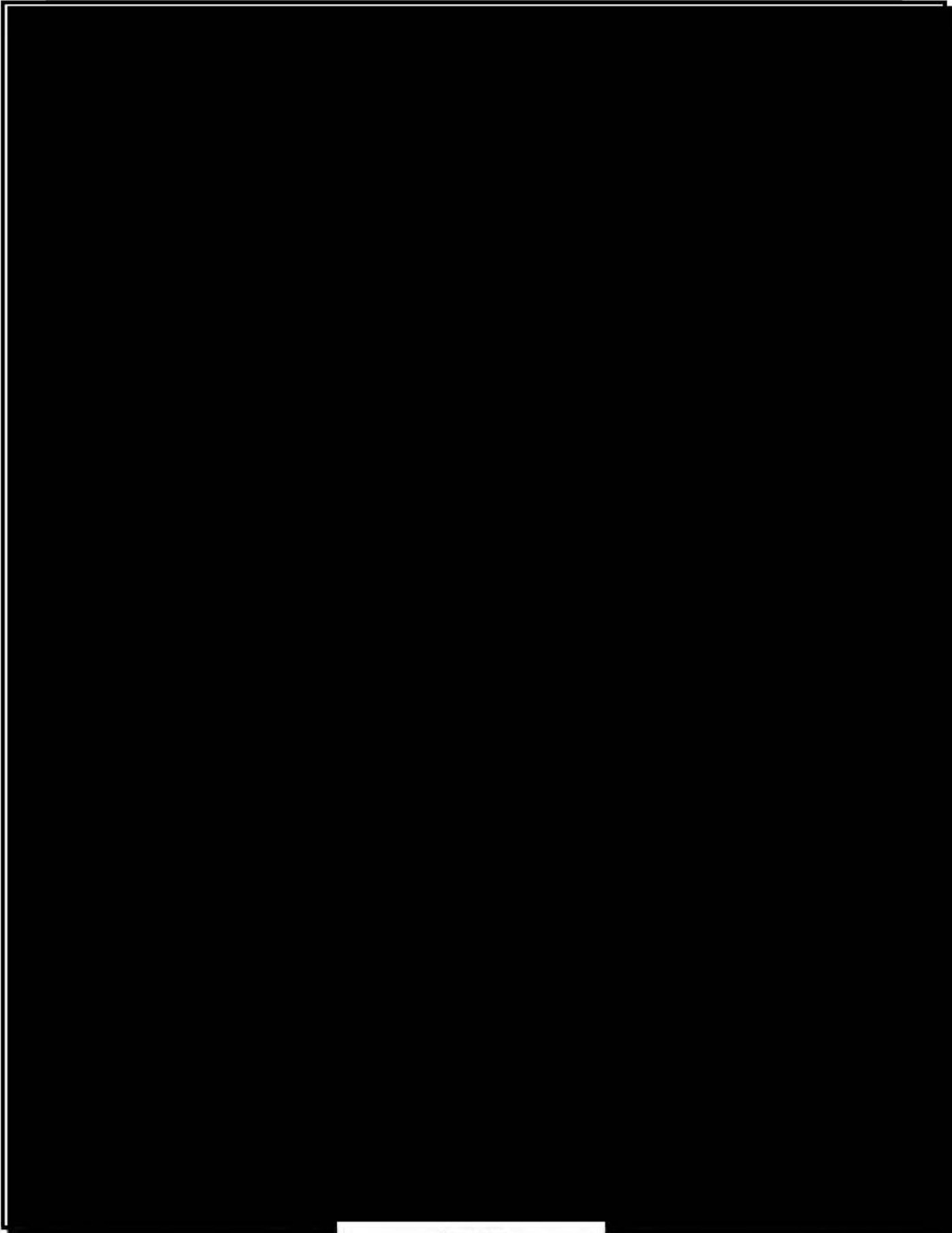
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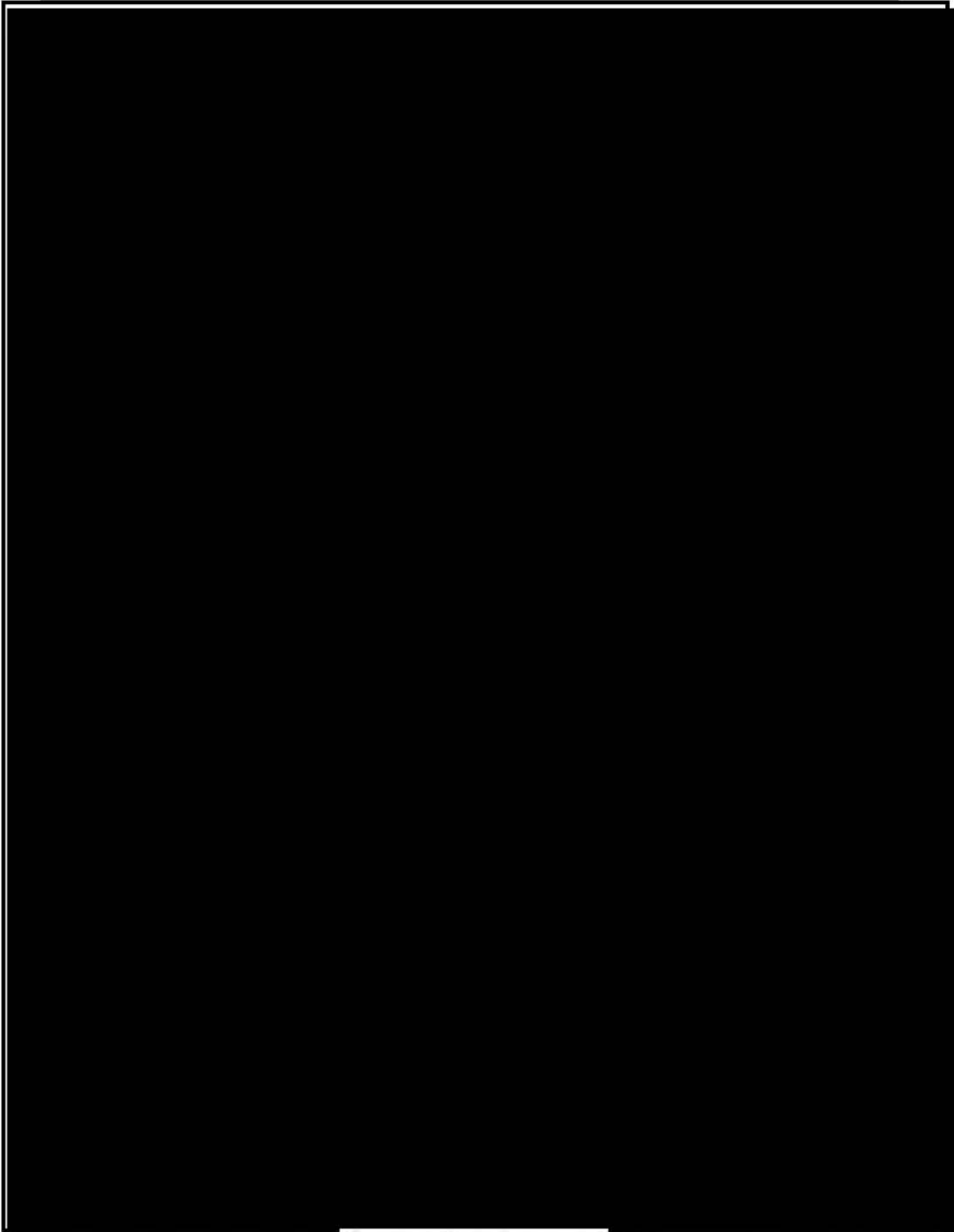
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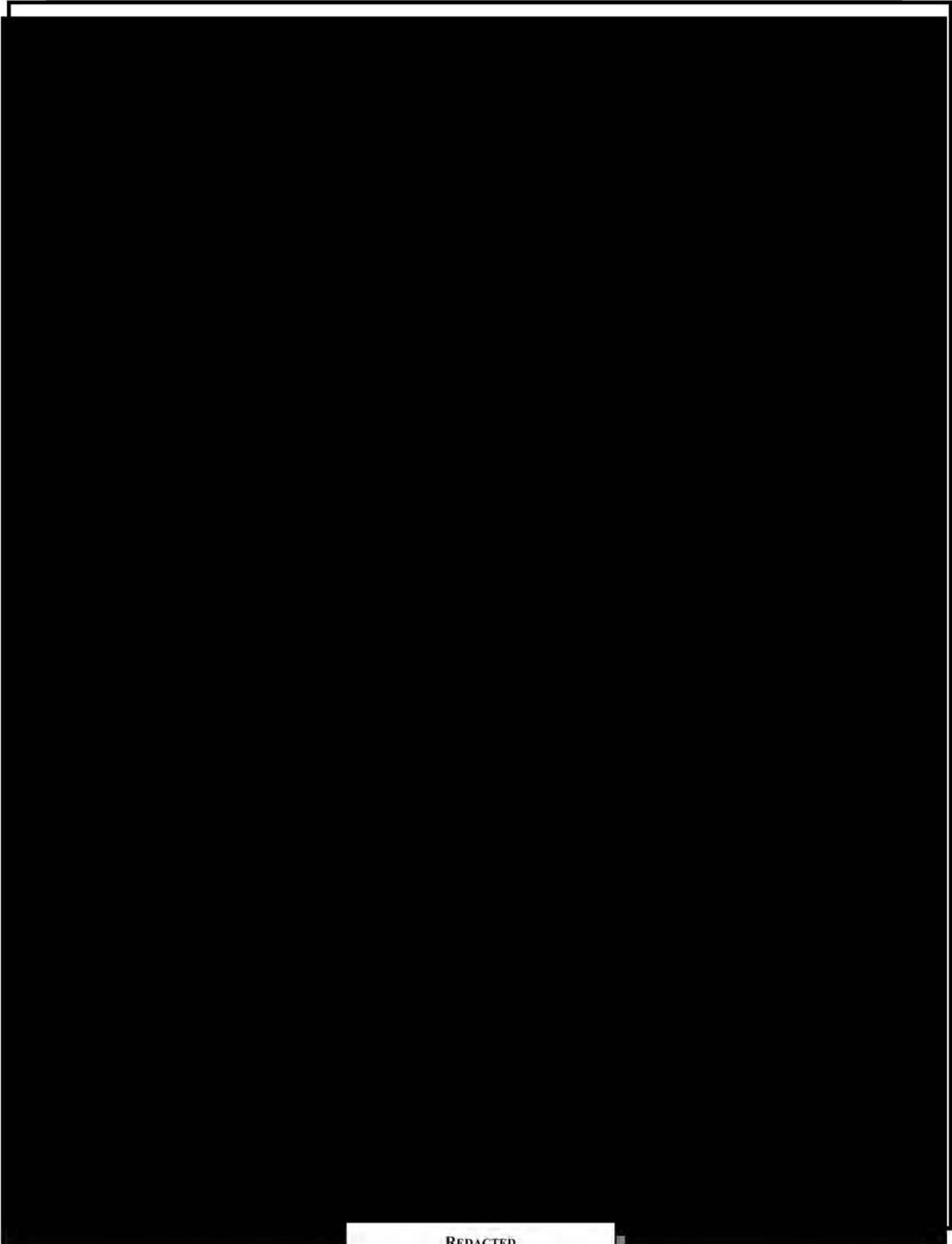
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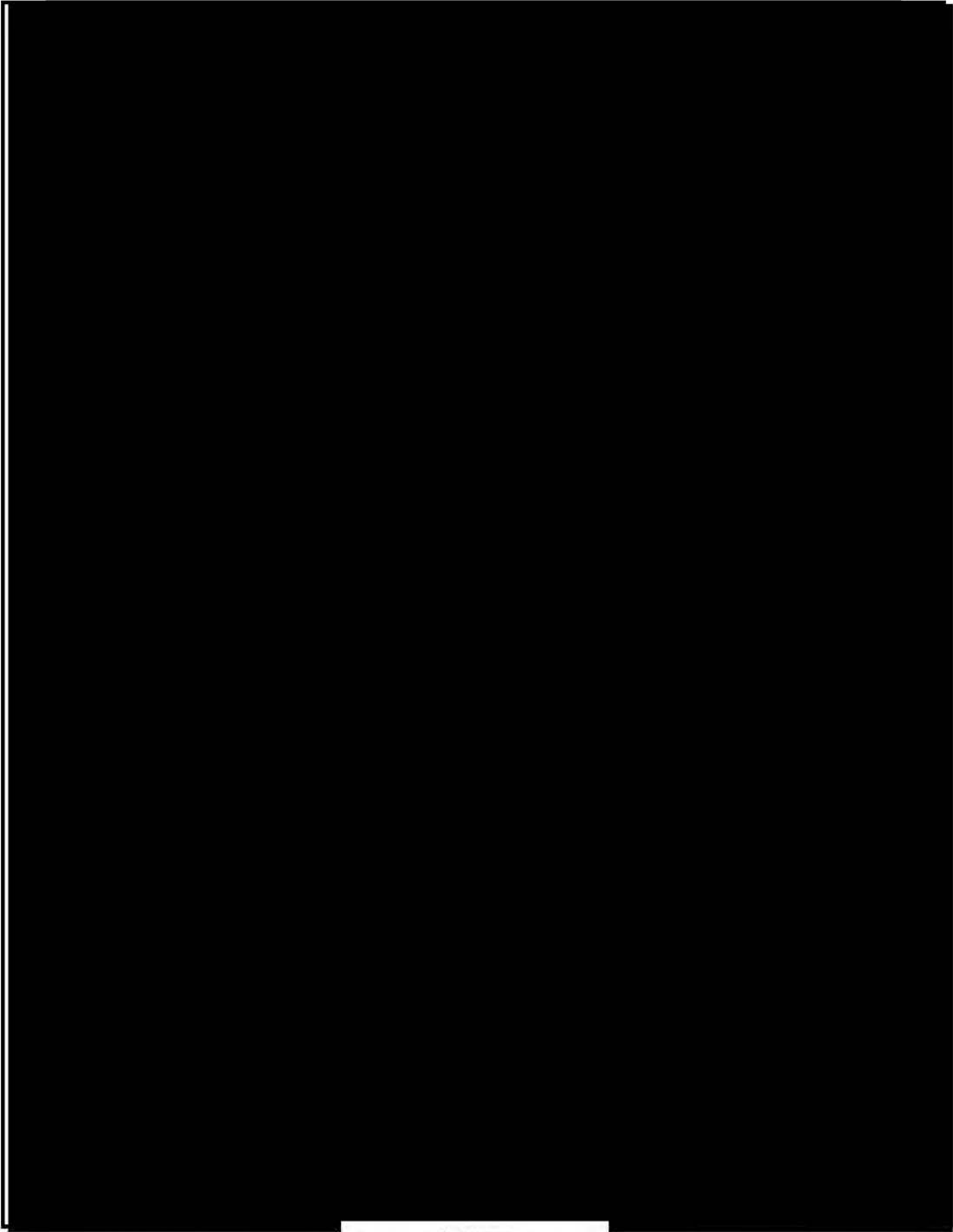
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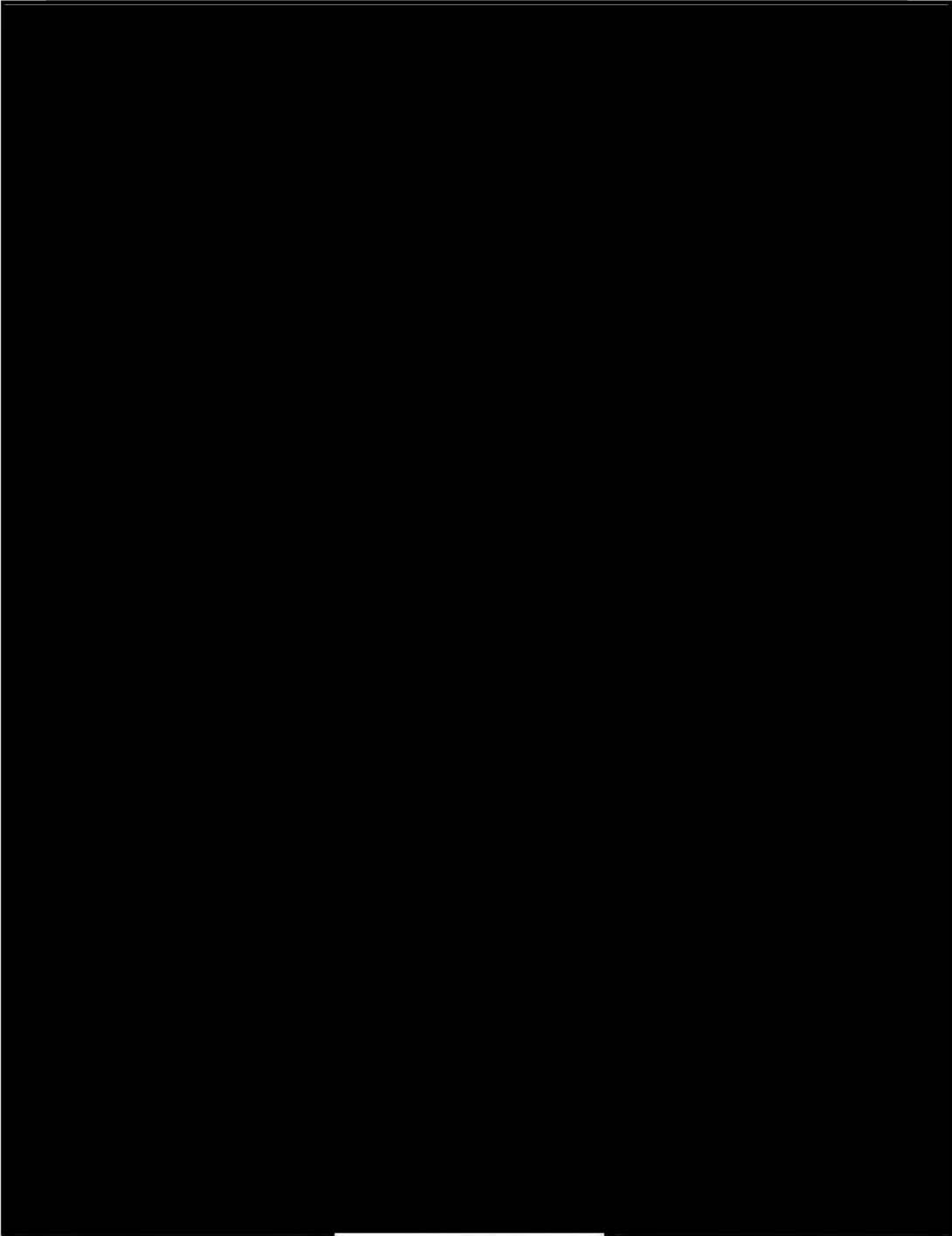
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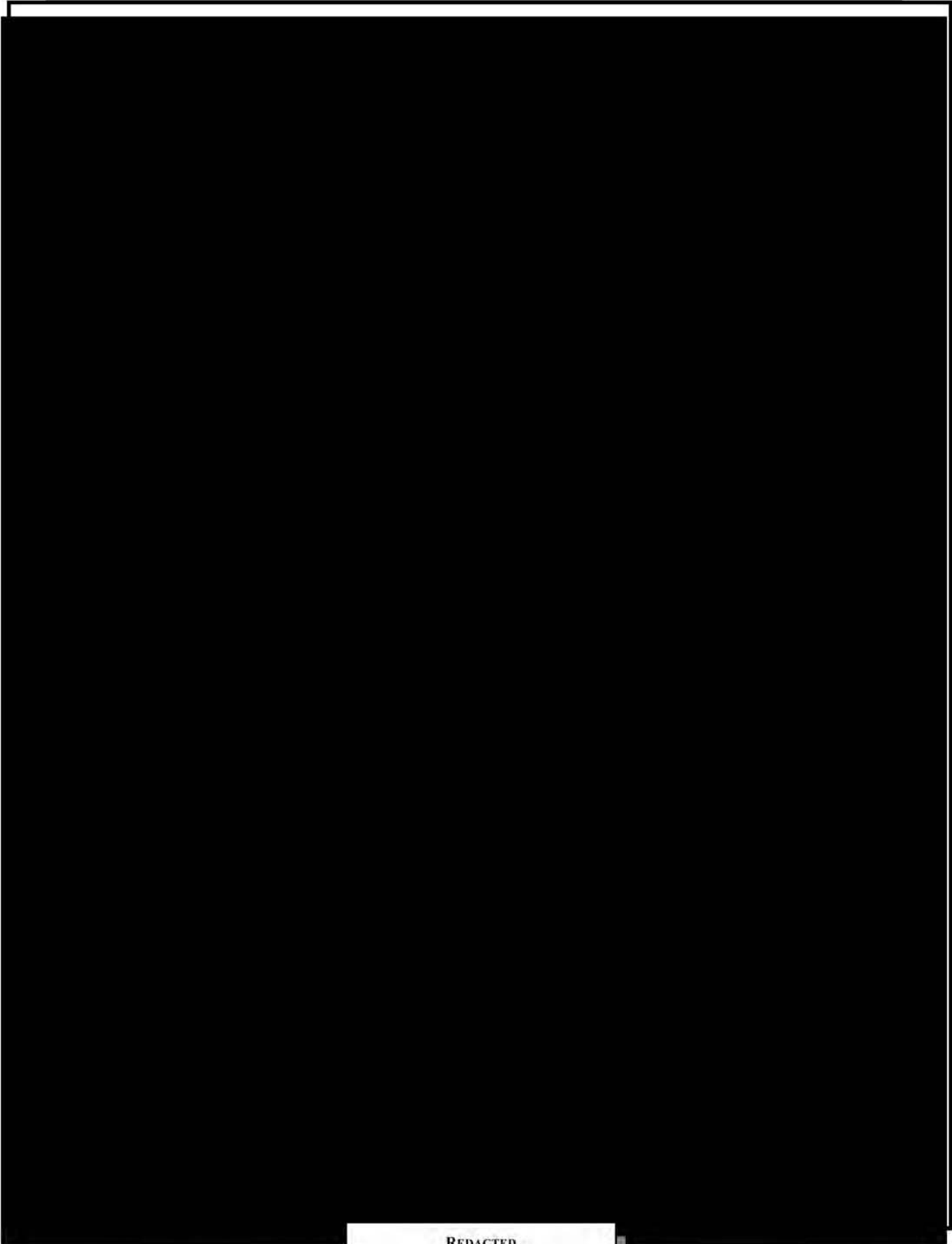
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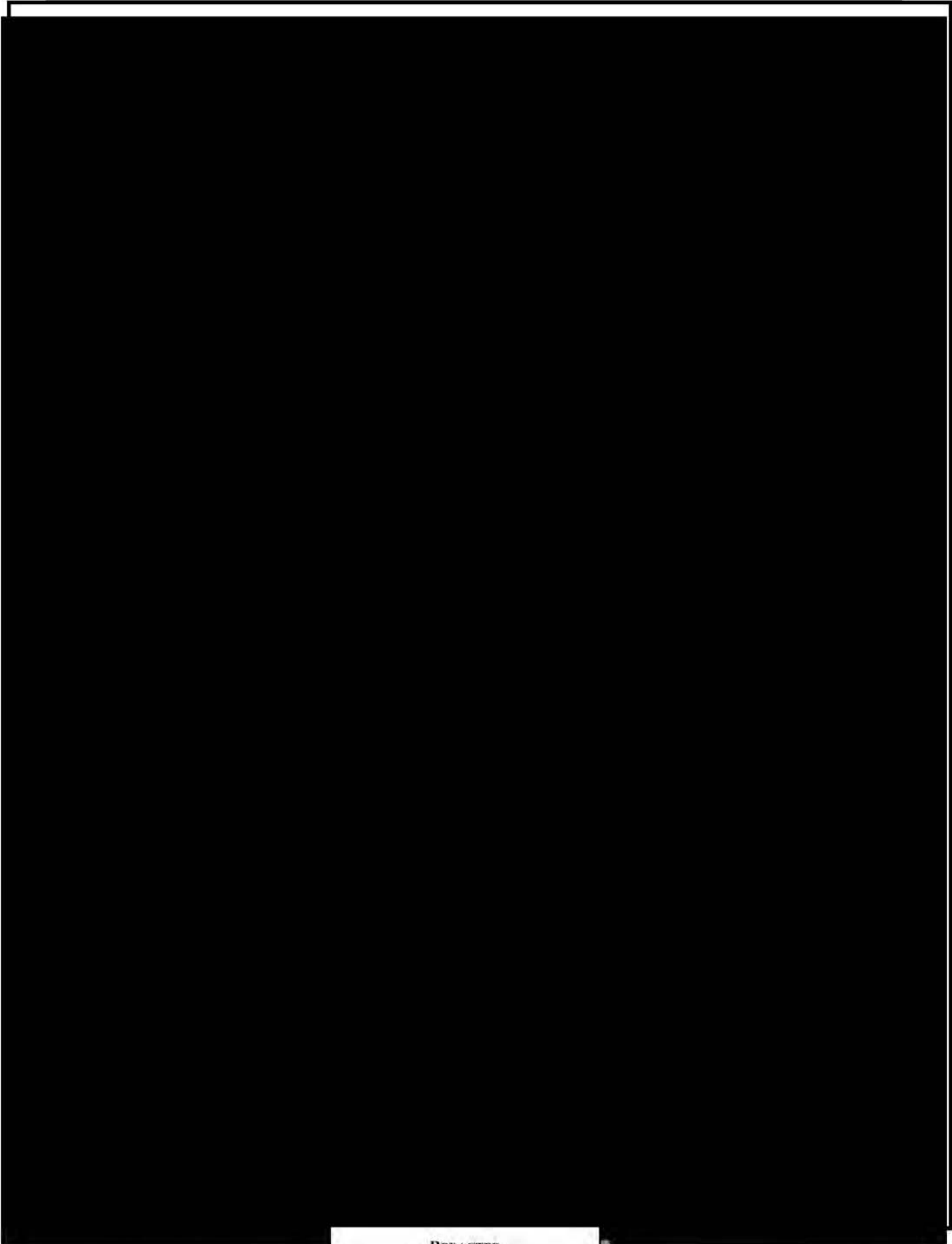
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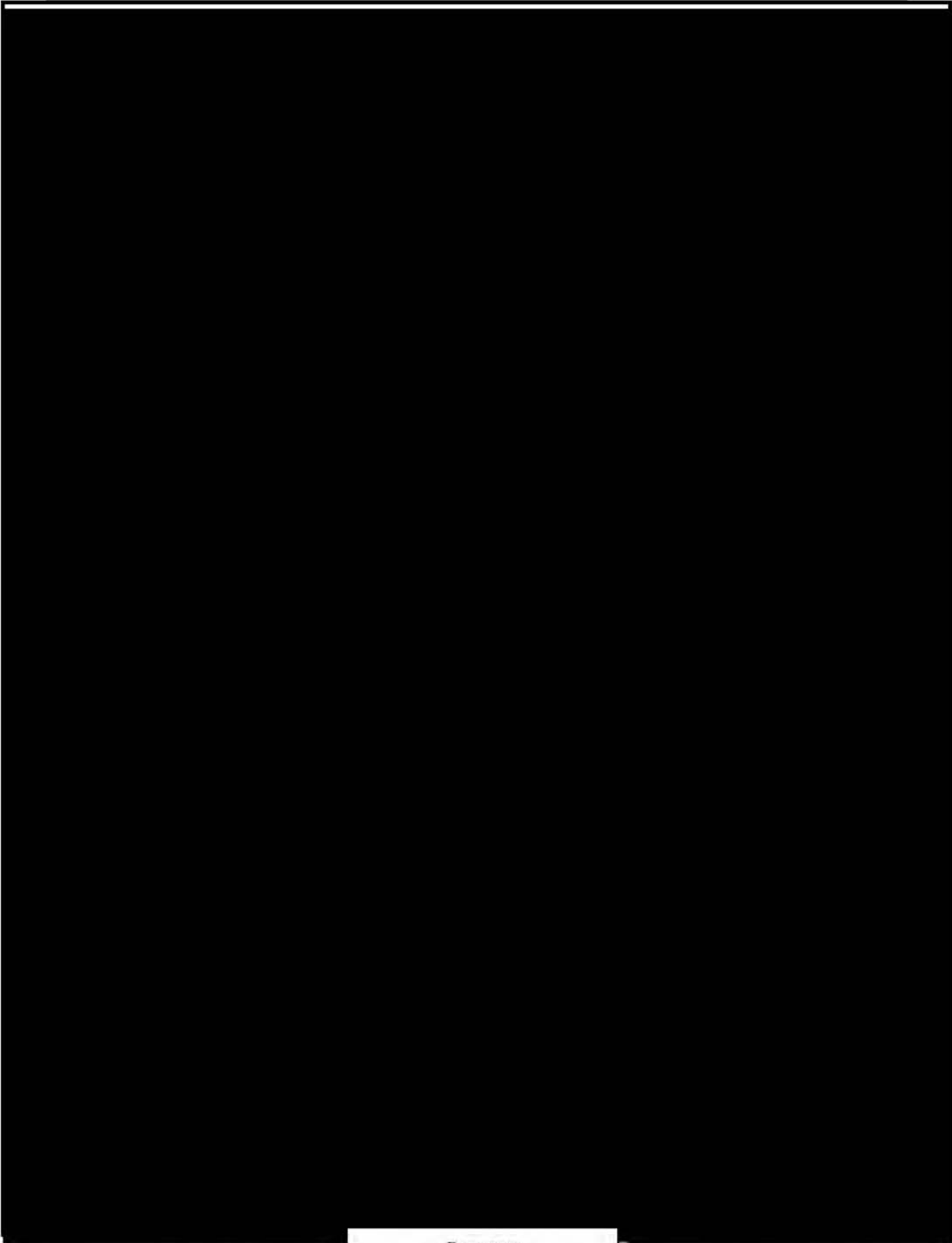
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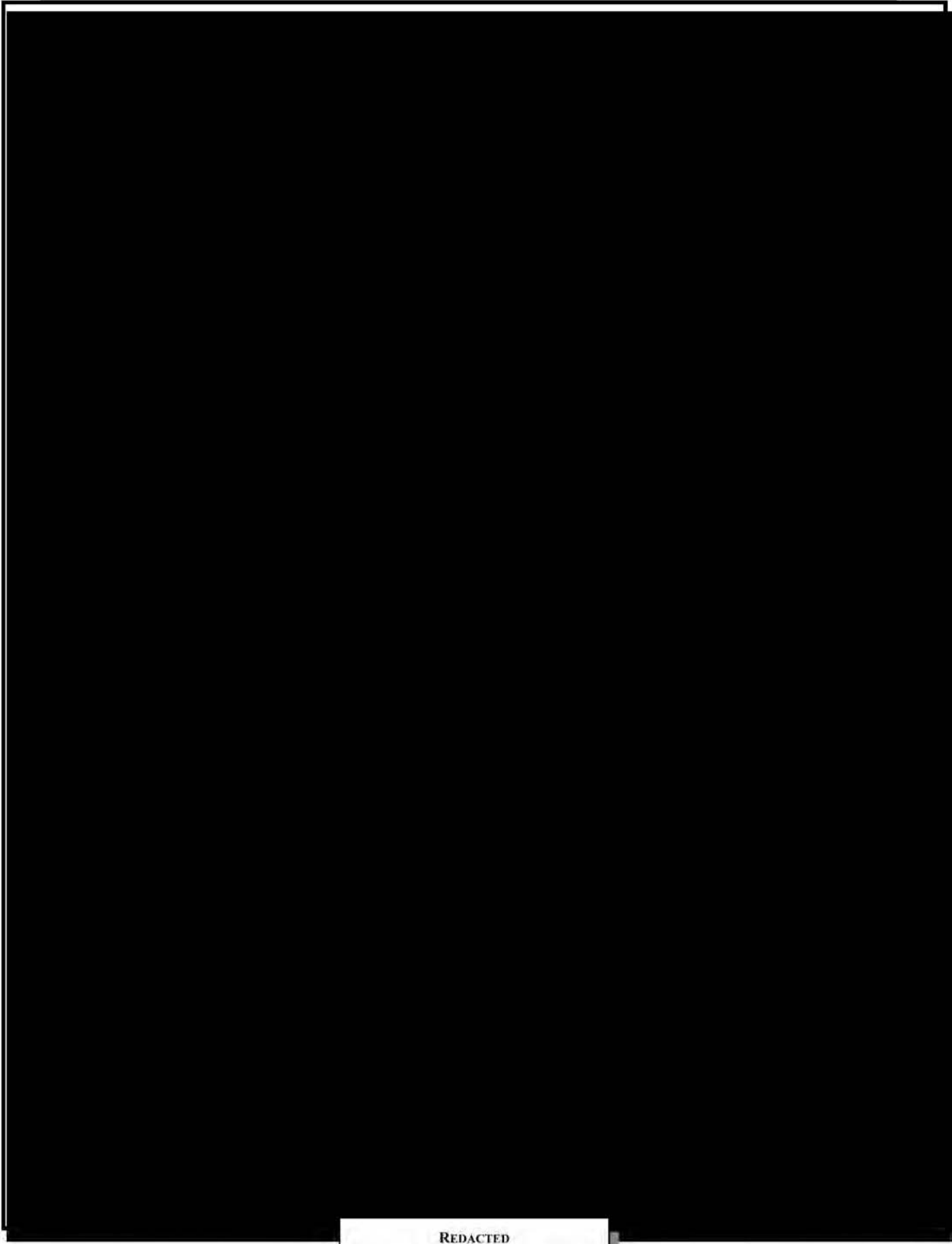
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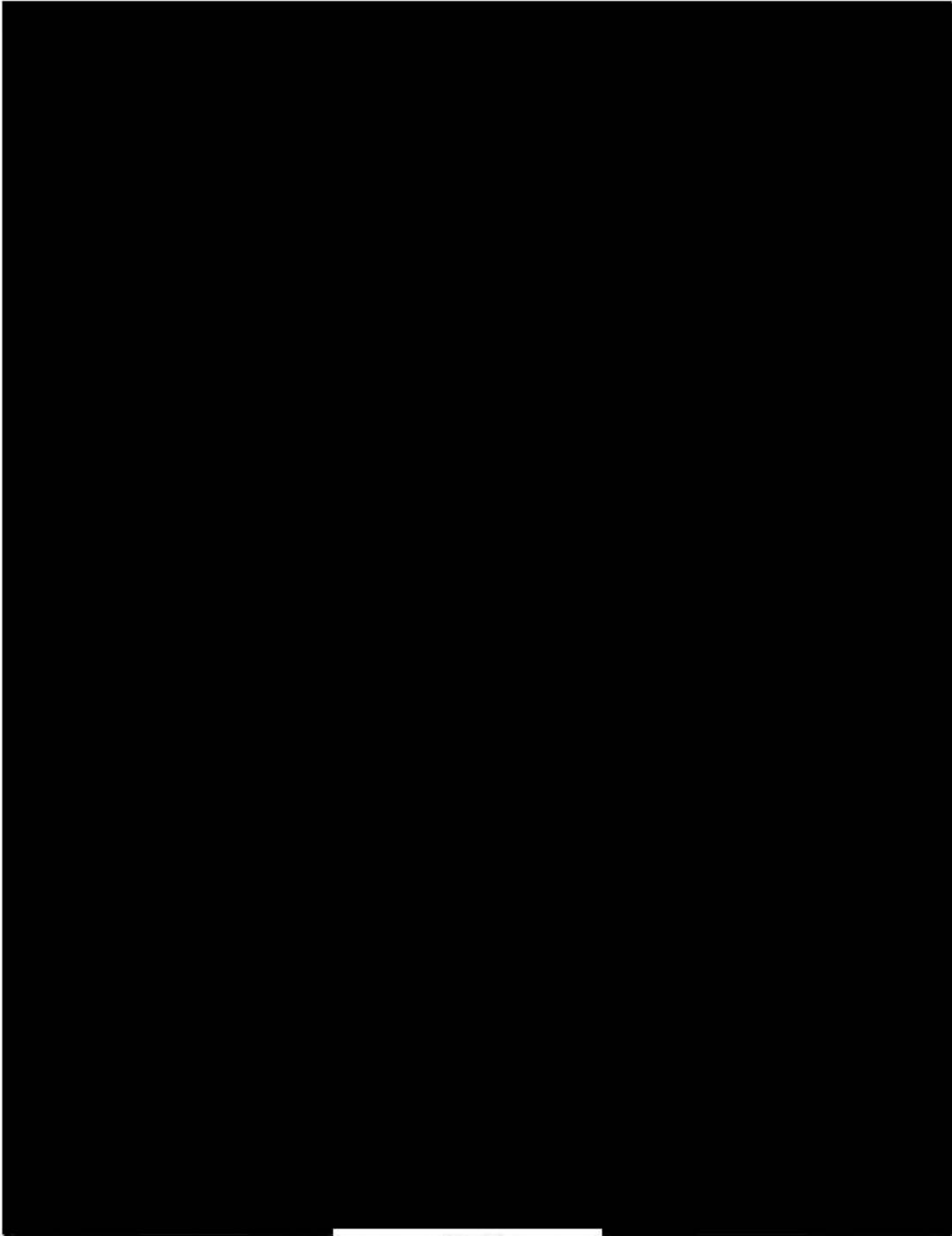
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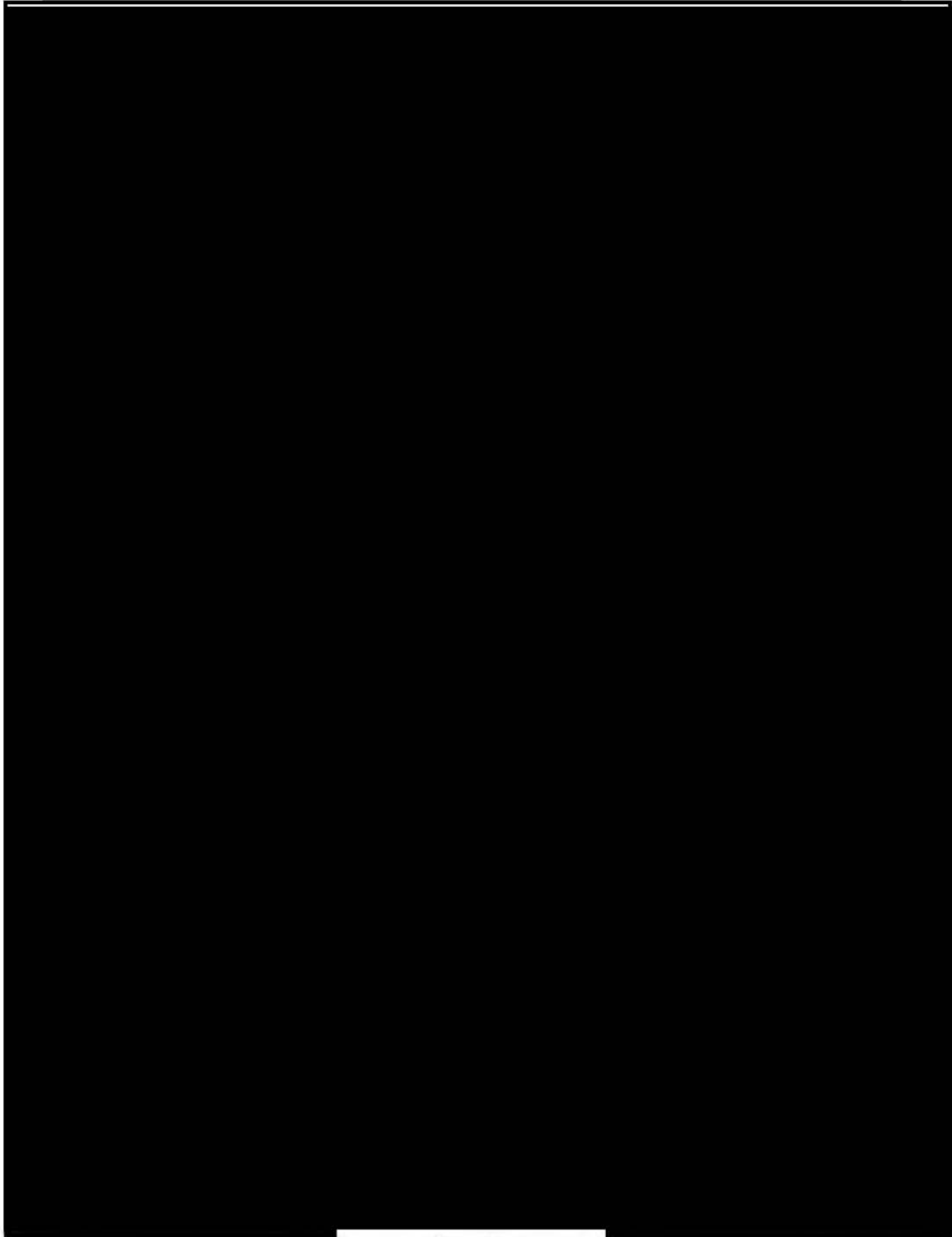
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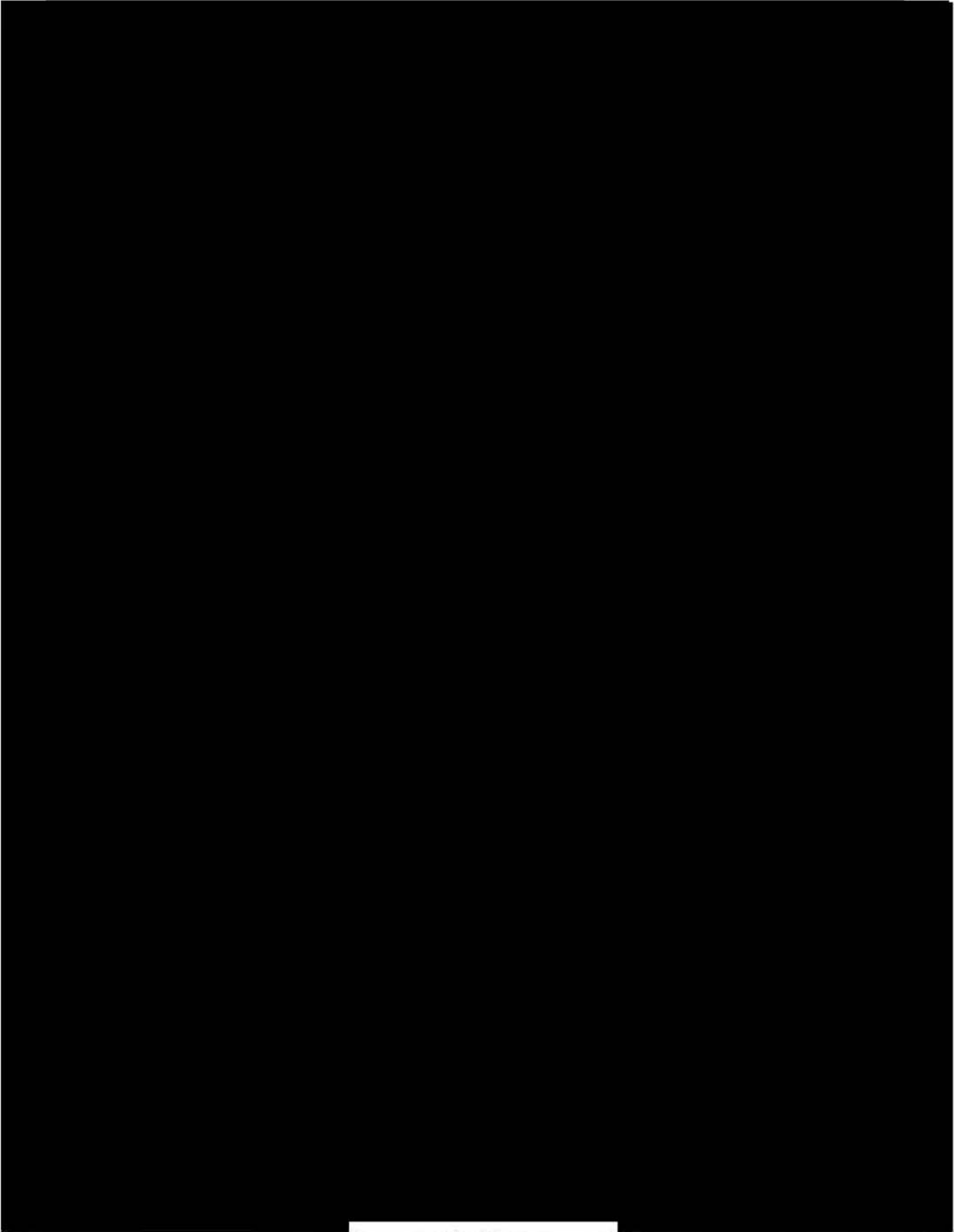
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Exhibit O-2

**Response to DNV-GEC
Siemens SWT-2.3-101 Technical Review**

Exhibit O-2 Response to DNV-GEC - Siemens SWT-2.3-101 Technical Review***Introduction***

DNV Global Energy Concepts Inc. ("DNV-GEC") has been retained by PSE to conduct a technical due diligence review of the Siemens SWT-2.3-101 wind turbine. DNV-GEC summarized the turbine technology and commented on the expected performance of the SWT-2.3-101 based on publically available information, DNV-GEC's general industry experience, and information provided by Siemens. DNV-GEC has provided their report to PSE, *Siemens SWT-2.3-101 Technical Review* dated March 15, 2010 (Exhibit O-1).

A. The Siemens Company

Siemens Wind Power is headquartered in Denmark. Siemens history in the wind industry began with the purchase of the Bonus wind turbine manufacturing company in 2005. Bonus was a well-established wind turbine manufacturer since 1980 and Siemens retained the key principals and technical experts that had developed the Bonus turbines. Many of the Bonus turbines were installed in the US and continue to operate today. The Siemens technology is well respected in the wind industry and the Siemens presence continues to expand in North America. Siemens ranks among the top ten manufacturers worldwide (Table 1). Siemens field services in the US continue to grow with their installed base and provide well-trained technicians, based in Houston, TX.

Table 1. 2008 Market Share

Manufacturer	Established	Country of Origin	Approx. Installed Capacity (MW)	Approx. Installed Units
Vestas	1979	Denmark	35,000	39,000
GE	2002	United States	18,200	12,000
Gamesa	1994	Spain	16,700	13,000
Enercon	1988	Germany	16,600	14,000
Siemens	1980	Denmark	9,000	7,500
Suzlon	1995	India/Germany	7,200	3,000
Nordex	1985	Germany	5,000	3,700
REpower	2001	Germany	3,600	1,500
Acciona	1997	Spain	3,000	1,200
Mitsubishi	1980	Japan	2,700	2,800
Goldwind	1999	PRC	2,600	2,600

Source: BTM Consult, World Market Update Reports and vendor reports

B. Siemens Wind Turbine Technology

Siemens SWT-2.3-101 is the most recent addition to the Siemens 2.3 MW product line (Table 2). The SWT-2.30-101 is based on the SWT-2.3-93 with only difference being the larger diameter rotor. Prototyping of the SWT-2.3-101 began in 2008, with serial production in late 2009. There were 1,415 SWT-2.3-93 turbine installations worldwide as of June 1, 2009, with 4 SWT-2.3-101 installations, three of which are located in the US (two in Washington and one in Colorado). Additionally, Siemens has firm orders for 2010 installation of 378 SWT-2.3-101 in the US and Canada (Table 3). The standard version of the SWT-2.3-101 is certified to IEC Class IIB. The cold-weather package, which PSE will purchase for the LSR turbines, is in the certification process. PSE is seeking a certificate amendment from Siemens for the cold weather package.

Table 2. Siemens 2.3 MW Product Line

Model	First Production Year	Rotor Diameter	Power Control Scheme	IEC Wind Class
SWT-2.3-82 ⁽¹⁾	2002	82 m	Constant speed	IA
SWT-2.3-82-VS	2004	82 m	Variable-speed	IA
SWT-2.3-93 ⁽²⁾	2005	93 m	Variable-speed	IIA
SWT-2.3-101 ⁽²⁾	2009	101 m	Variable-speed	IIB

(1) The SWT-2.3-82 has been superseded and is no longer available.

(2) Only the SWT-2.3-93 and SWT-2.3-101 are available in North America

Table 3. Siemens 2010 SWT-2.3-101 Firm Orders

2010 SWT-2.3-101 Firm Orders	
Location	Number
Wyoming	44
Minnesota	16
Oklahoma	66
Texas	87
Ontario – project 1	40
Ontario – project 2	22
Ontario – project 3	43
Manitoba	60

Siemens is ISO 9001 certified and has established manufacturing facilities worldwide. Although many of the turbine components for the LSR turbines will be sourced in Europe, the blades will be manufactured at a new Siemens facility in Iowa, and the nacelles will be assembled and tested either in Denmark or Kansas. The tower will likely be fabricated in China. The nacelle configuration of the SWT-2.3 turbine is presented in Figure 1. Table 4 summarizes the technical features.

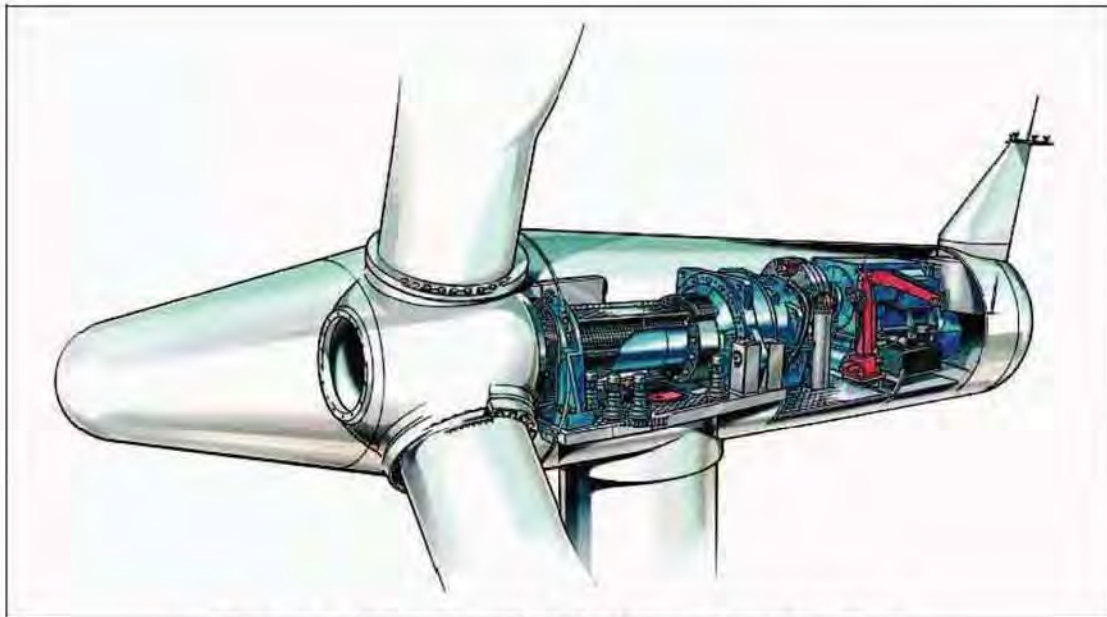


Figure 1. Siemens SWT-2.3-101 Nacelle Configuration.

Table 4. SWT-2.3-101 Technical Summary

Feature	Specification
Rated power	2.3 MW
Wind class	IEC IIB ⁽¹⁾
Rated power wind speed	12 m/s
Wind speed operating range	4–25 m/s
Rotor configuration	3-blade upwind, pitch-to-feather
Rotor diameter	101 m
Tower height	80 m, or site-specific
Rotor speed	6.0 to 16.0 rpm
Rotor tip speed	32 to 85 m/s
Tower	80-m steel tubular, tapered
Power regulation	Independent hydraulic blade pitch cylinders
Drive train design	3-point gearbox arrangement
Gearbox	3-stage planetary/helical
Generator	Asynchronous induction generator, 690V, 1500 rpm nominal
Transformer	Down-tower (padmount)
Grid compatibility	Variable power factor, LVRT ⁽²⁾
Certification status	Certified to IEC 61400-1, Ed 3

⁽¹⁾ The standard version is certified to this IEC wind class; however cold-weather version is not yet certified.

⁽²⁾ LVRT stands for low voltage ride through.

C. DNV-GEC Turbine Technology Review

DNV-GEC provided the following summary comments in their technical due diligence review report. PSE engineering's response in italics follows these comments:

1. PSE should audit the blade-manufacturing facility that will supply the blades for the LSR project multiple times during the manufacture of the blades.

PSE intends to audit the new Siemens blade facility in Iowa prior to start of production for LSR turbines. Dependent on the findings of that initial visit a follow up inspection program will be developed.

2. Based on the industry's experience with gearbox reliability, PSE should consider the possibility that the gearboxes will require overhaul during the project's life. Frequent oil sampling and borescope inspections should be used to monitor gearbox health. Additionally, the required condition of the gearboxes at the end of the warranty period should be defined in the commercial terms.

Oil sampling is integrated into the Siemens service plan. The SWT turbine also come with an integrated condition monitoring system that uses vibration signals to detect bearing or gear damage at an early stage. This system has proven more reliable and less invasive than borescope inspections, but the gearbox is equipped with inspection ports if this should be required. The crane pads that will be constructed to allow assembly of the unit will be retained as permanent features on the site so that in the event it is necessary to mobilize a large mobile crane for gearbox removal it will be able to access any turbine and operate without the need for any additional preparatory works.

3. Although an investigation by Siemens has identified some potential causes of the main bearing failures, the Root-Cause Analysis (RCA) is still underway. PSE should review the results of the RCA once it is completed and address the potential for main bearing failures in the commercial terms.

PSE engineering staff have discussed the history and resolution of the main bearing problems with Siemens engineering in Denmark. Although Siemens has determined that a single root cause will probably not be determined, we are satisfied that the quality assurance measures implemented by the bearing manufacturer on behalf of Siemens address the several possible causes of the premature bearing failures. We note that Siemens has confirmed to us that no main bearing failures have occurred since these changes were implemented.

4. The yaw motors and gears at some sites, especially sites with higher turbulence, have experienced failures. Siemens has developed a retrofit to address the failures and has incorporated the retrofit into the design of the

SWT-2.3-101. PSE should address the risk of yaw motor and gear failures in the commercial terms.

PSE engineering staff discussed the yaw gear issue with the Siemens system engineer in Denmark. Siemens has requested that we keep the content of these discussions confidential, since they view the solution to the problem as a commercial advantage. The failures arose from a subtle motor control issue that was not well understood. The solution involved a software adjustment that was implemented fleet-wide. The turbine supply agreement (TSA) contains language that requires Siemens to perform a RCA on any failures that reach a serial defect limit, with the intent of validating the remedy.

5. The power converter has been redesigned in response to converter failures. The redesigned converter has a limited operating history, and PSE should address the risk of converter failures in the commercial terms.

Siemens maintains that there have not been any failures since introduction of the new converter. The TSA contains language that requires Siemens to perform a RCA on any failures that reach a serial defect limit, with the intent of validating the remedy.

6. PSE should review the tower weld defect RCA results, as well as the quality-management systems of Siemens and its vendors. In addition, PSE should audit the tower manufacturing facility and address the risk of tower defects in the commercial terms.

Siemens acknowledges that there was a serious lapse in quality control at one specific fabrication facility in China. As a result, this supplier has been disqualified. PSE is committed to performing our own inspections at the (new) tower fabricator and has retained a native-language inspector familiar with welding technology who provided similar inspection services at the tower fabrication facility in Vietnam that supplied the towers for the Wild Horse project.

7. The warranty language related to serial failures should consider the possibility that a given major component may be supplied by multiple manufacturers and that the reliability of a major component could vary by manufacturer. PSE should also ensure that Siemens obtains their approval prior to making any substitutions for vendor components. This requirement should extend to place of manufacture.

The serial defect language in the TSA explicitly includes components from multiple vendors. Siemens has provided a comprehensive list of the approved suppliers for all of the major components as an exhibit in the TSA. All of these suppliers are reputable and have many years of experience supplying equipment for the wind turbine industry.

8. DNV-GEC recommends that PSE consider first-article acceptance inspections prior to delivery, especially if any configuration or vendor changes

are implemented. Any changes to configuration or vendors should be approved by PSE prior to acceptance of product.

PSE intends to audit the new Siemens nacelle facility in Kansas or Denmark prior to start of production for LSR turbines. The PSE audit approach will be to verify the factory complies with its own documentation, procedures and QA/Engineering policies rather than focus on acceptance inspections of a particular unit.

9. DNV-GEC recommends that Siemens perform a site-suitability analysis and that this analysis is closely reviewed and independently verified.

Siemens has performed a site-suitability analysis for the SWT-2.3-101 turbine at the LSR Phase 1 site (Climatic Conditions Review March 12, 2010), and has delivered a report. They have identified three turbines that may require Turbine Load Control (TLC) when the wind comes from specific directions. Siemens is warranting the turbines based on this analysis. TLC is an included feature in all of the Siemens turbines. Since the turbine aeroelastic model used in the suitability analysis is proprietary and highly complex, PSE does not see that an independent review will add any value. The PSE design consultant, (Burns & McDonnell ["BMcD"]) has also modeled the same turbines and concluded that because of the very narrowly focused wind rose at the LSR site, the turbines will very infrequently, if ever, experience conditions where TLC is exercised.

10. The cold-weather version of the SWT-2.3-101 is currently not certified. DNV-GEC recommends that PSE address the risks associated with the lack of certification in the commercial terms.

The conditions at the LSR site do not absolutely require the cold weather version of the turbine, but PSE has elected to purchase this option to allow operation during the few periods when the temperatures drop below -10C, and to provide an extra measure of safety if sustained periods of temperatures below -20C occur. The historical record for the area indicates that these low-temperature events will be infrequent. PSE is satisfied that Siemens is making progress on this front, and that there is a small risk that Siemens may need to make some modifications to the thermal conditioning system. PSE will purchase the standard version of the SWT-2.3-101, which is certified to IEC Class IIB, and is seeking a certificate amendment from Siemens for the cold weather package. As part of the TSA agreement, PSE will withhold 2% of the contract price until Siemens is able to provide certification of the cold weather package.

Exhibit P

Wind Resource and Energy Assessment

Exhibit P Wind Resource & Energy Assessment**A. Meteorological Mast Program**

PSE owns 20 meteorological (“met”) towers across the Lower Snake River Wind Project (“LSRWP”), which specifically include five Rohn 25G lattice met towers, thirteen Sabre 1800 lattice met towers and three Sabre 1200 lattice met towers, all approximately 60 meters in height (Figure 1). DNV-GEC has been engaged by PSE to provide met tower monitoring services.

All met towers are currently providing data to PSE daily. DNV-GEC archives daily data into its database and performs a weekly quality control check of the data to insure there are no problems with sensor and/or data collection. Any problems will be communicated to PSE within 7 days for resolution. DNV-GEC validates and processes raw data monthly to remove “bad” data resulting from icing or malfunctioning sensors, and/or missing data. DNV-GEC provides PSE with raw and processed met tower data and a monthly summary report of the met towers approximately 4 weeks after the end of the month. The monthly summary report includes the following:

- a) Tower location and configuration information
- b) Operations and maintenance summary
- c) Monthly data recovery rate
- d) Monthly average and peak wind speed at all measurement heights
- e) Monthly average wind shear
- f) Turbulence intensity versus wind speed plot
- g) Wind energy rose for top-level measured winds, current month and cumulative
- h) Average, minimum, and maximum temperature data
- i) Average, minimum, and maximum barometric pressure data
- j) Maximum wind speed gust

Monthly data summary reports include all historical data available for each met tower validated.

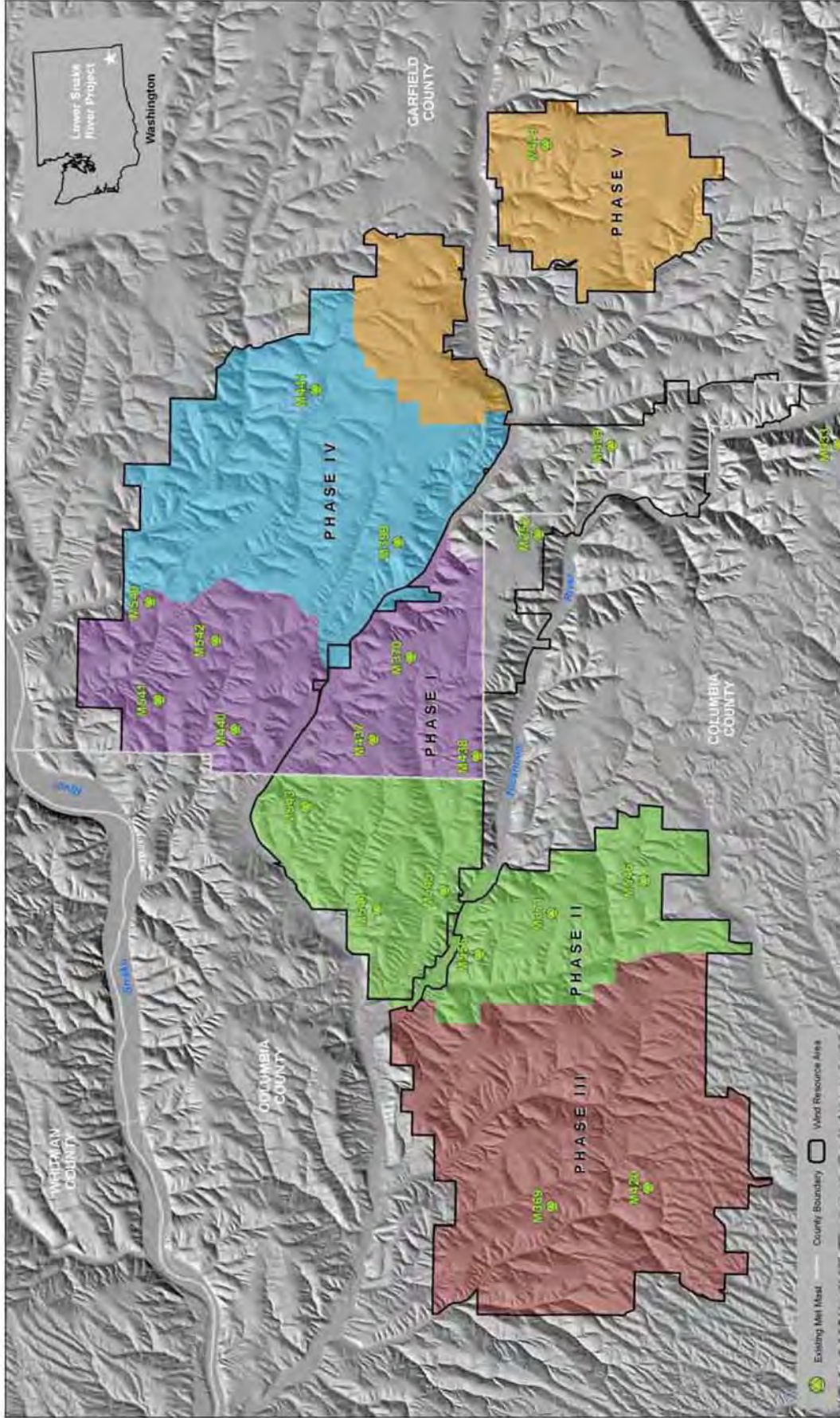


Figure 1. Lower Snake River Wind Project across Columbia and Garfield counties in southeast Washington.

PSE produces a monthly report approximately 2 weeks after receipt of the DNV-GEC monthly summary report, which includes:

- a) Location summary map with current monthly mean wind speed
- b) Graph of all met towers with Hopkins Ridge data
- c) Monthly average wind speed and annual average wind speed
- d) Monthly deviation of normal per met tower
- e) Comparison of monthly mean wind speeds to wind class designation of project
- f) General weather for the month
- g) Status of projects/events, as needed

1. Data Storage

PSE stores the raw, validated, and processed data on a network drive. This requires approximately 7 MB per met tower per year. Validated, processed data includes identifying data flagged for removal due to tower effect, icing, and/or malfunction sensor with accompanying data about the tower and sensors.

PSE contracts DNV-GEC's Extranet Services to provide secure data storage and access to LSRWP met tower data starting in October 2009. The DNV-GEC Extranet is a tool that delivers site and task-specific files to the client in a secure manner.

2. Met Tower Maintenance

DNV-GEC will oversee met tower maintenance for the LSRWP met towers through December 2010 using the subcontractor Vertical Technologies of Dayton, WA. Vertical Technologies was contracted by RES for the LSRWP met tower maintenance (routine & non-routine maintenance and met tower installation) prior to PSE acquisition of the RES interest. Routine maintenance will be conducted annually during the fall to prepare the met towers for the winter. Non-routine maintenance includes:

- a) Troubleshooting equipment problems
- b) Logger repair and sensor replacement/repair
- c) Instrument calibration
- d) Site fencing repair
- e) FAA lighting

- f) Structural inspections of met towers

B. Wind Resource Assessment

1. DNV-GEC Energy Assessment

DNV-GEC was retained by PSE to provide an energy assessment of the LSRWP (Exhibit P-1). A summary of the DNV-GEC energy assessment is shown in Table 1.

Table 1. DNV-GEC Energy Assessment Phase I Summary

Project Summary	
Project Name	Lower Snake River Phase I
Location	Garfield County, Washington
Turbine Type	Siemens SWT-2.3-101
Turbine Hub Height (m)	80
Turbine Rated Power (kW)	2300
Number of Turbines	149
Installed Capacity (MW)	342.7
Wind Resource Summary	
Average Air Density (kg/m ³)	1.15
Average Met Tower Shear Exponent	0.10
Average Hub-Height Turbulence Intensity, Wind Speeds > 4 m/s	11%
Average Long-Term Adjustment	-2.4%
Average Long-Term Hub-Height Wind Speed (m/s)	
Met M252	7.1
Met M370	7.2
Met M371	7.2
Met M399	6.9
Met M437	7.3
Met M438	6.8
Met M440	6.9
Average Turbine Hub-Height Wind Speed (m/s)	7.0

Energy Assessment Summary, 20-Year Values				
Wake Loss Scenario	Phase I Only	Phase I & II	Phase I & III	Phase I, II & III
P50 Losses				
- Availability Loss				
- Wake Effects Loss				
- Turbine Performance Loss				
- Electrical Loss				
- Environmental Loss				
- Curtailment Loss				
- Other Loss				
Estimated Gross Energy (GWh/year)				
Estimated Total Losses				
P5 Net Energy (GWh/year)				
P5 Net Capacity Factor				
P95 Net Energy (GWh/year)				
P95 Net Capacity Factor				
P50 Net Energy (GWh/year)				
P50 Net Capacity Factor				

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The analysis was conducted using the Siemens SWT-2.3-101 turbine and turbine layouts for 149 turbines installed at 80m hub height for an installed project capacity of 342.7 MW. DNV-GEC processed and validated all raw met tower data and removed erroneous data for icing, malfunctioning sensors, and tower shadow. Wind shear was calculated for each met tower within Phase I of LSRWP and used to shear up the mean wind speed of each met tower to a hub height of 80m. Turbulence intensity at hub height of 80m was extrapolated from 60m using wind shear calculated from the met tower. DNV-GEC, through regression analysis between a long-term reference and met towers within Phase I of LSRWP, determined a long-term downward adjustment of 2.4% for mean wind speed at the met towers. Met tower mean wind speed was then adjusted. DNV-GEC used a conservative average of four different wake models as a best approximation of the expected wake losses: two combinations of the Ainslie and Park models that predict the deficit behind single turbines and two wake combinations models (square root of the sum of squares of velocity deficit and energy balance) that combine the single wakes when they overlap. The wake loss scenarios include:

1. LSRWP Phase I
2. LSRWP Phase I & II
3. LSRWP Phase I & III
4. LSRWP Phase I, II, & III

DNV-GEC did not include the Hopkins Ridge wind project in the wake modeling, since Hopkins Ridge was constructed and online by 2005, so the wind speed at the met towers captures the wake effect of the Hopkins Ridge wind project. The Marengo I & II wind projects are located southeast of the LSRWP and were constructed and online by 2008. Since these projects are not directly upwind of the LSRWP, DNV-GEC believes the wake impact would be minimal and is not included in the analysis. DNV-GEC provided a summary of wake loss scenarios (Table 2).

Table 2. DNV-GEC Summary of Wake Loss Scenarios.

Wake Loss Scenario	Internal Wake Loss	Future Wake Loss	Total Wake Loss	Wake Loss Uncertainty
Phase I only				
Phase I and II				
Phase I and III				
Phase I, II, and III				

DNV-GEC's projected losses are shown in Table 3 and projected net average energy production for each of the scenarios described above are shown in Tables 5, 6 and 7.

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Table 3. DNV-GEC Summary of Long-Term P50 Losses

Wake Loss Scenario	Phase I Only	Phases I & II	Phases I & III	Phases I, II & III
Gross Energy (GWh/year)	1103	1103	1103	1103
LOSSES				
Availability				
Turbine ⁽¹⁾				
Balance of plant				
Wake Effects				
Internal wake effects				
External wake effects				
Future wake effects				
Turbine Performance				
Power performance				
Turbulence and controls				
Electrical				
Environmental				
Blade soiling				
Blade degradation ⁽¹⁾				
Weather, including icing, lightning, hail				
Vegetation ⁽¹⁾				
Curtailment				
Other				
Effect of asymmetric uncertainties				
Total Losses				
Net Energy (GWh/year)				
Net Capacity Factor				

1. Values are long-term averages over a 20-year project life and are lower in initial years of operation

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Table 4. DNV-GEC Summary of Project Net Average Energy Production – Phase I Only

Probability of Exceedance	20-Year Average	10-Year Average (First 10 Years)	1-Year (Entire Project Life)	1-Year (During First 10 Years)
Net Annual Energy Production (GWh/yr)				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				
Net Annual Capacity Factor				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				

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Table 5. DNV-GEC Summary of Project Net Average Energy Production – Phase I & II.

Probability of Exceedance	20-Year Average	10-Year Average (First 10 Years)	1-Year (Entire Project Life)	1-Year (During First 10 Years)
Net Annual Energy Production (GWh/yr)				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				
Net Annual Capacity Factor				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				

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Table 6. DNV-GEC Summary of Project Net Average Energy Production – Phase I & III.

Probability of Exceedance	20-Year Average	10-Year Average (First 10 Years)	1-Year (Entire Project Life)	1-Year (During First 10 Years)
Net Annual Energy Production (GWh/yr)				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				
Net Annual Capacity Factor				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				

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Table 7. DNV-GEC Summary of Project Net Average Energy Production – Phase I, II & III.

Probability of Exceedance	20-Year Average	10-Year Average (First 10 Years)	1-Year (Entire Project Life)	1-Year (During First 10 Years)
Net Annual Energy Production (GWh/yr)				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				
Net Annual Capacity Factor				
1%				
5%				
10%				
25%				
50%				
75%				
90%				
95%				
99%				

2. BMcD Energy Assessment

Burns & McDonnell ("BMcD") was also retained by PSE to provide an energy assessment of the LSRWP Phase I project (Exhibit P-2). The analysis was conducted using the Siemens SWT-2.3-101 turbine and turbine layouts for 149 turbines installed at 80m hub height for an installed project capacity of 342.7 MW. BMcD utilized data processed and validated by DNV-GEC, then removed all data flagged as erroneous from the data set. The wake model used in the analysis was the Axisymmetric Wake method (Ainslie), in addition to turbulence modeling of Garrad Hassan. Four wake modeling cases were examined:

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1. **Case A** – Phase I layout (REV F) of the Siemens SWT-2.3-101 turbine and existing Hopkins ridge wind project (Vestas V80-1.8 turbines)
2. **Case B** – Case A and Phase II BMcD layout of Siemens SWT-2.3-101 turbines
3. **Case C** – Case A and Phase III BMcD layout of [REDACTED] turbines
4. **Case D** – Case A and Phase II BMcD layout of Siemens SWT-2.3-101 turbines and Phase III BMcD layout of [REDACTED] turbines

The BMcD wake model and terrain losses are shown in Table 8, loss estimates are shown in Table 9, and the resulting energy yield is shown in Table 10.

Table 8. BMcD Wake Model and Terrain Losses.

	Case A	Case B	Case C	Case D
Wake Losses (%)	[REDACTED]			
Terrain Losses (%)	[REDACTED]			

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Table 9. BMcD Summary of Losses

Loss Description	Average Annual Losses
Availability¹	
Turbine	
Balance of Plant	
Grid	
Wakes²	
Internal	
External	
Future	
Turbine Performance	
Power curve	
High wind hysteresis	
Performance degradation	
Electrical	
Operational efficiency	
BOP consumption	
Environmental	
Performance degradation-icing	
Weather (shutdown due to icing, lightning, hail, etc.)	
High and low temperature	
Force majeure events	
Vegetation growth	
Curtailment	
Wind sector management	
Grid curtailment and ramp-rate	
Power purchase agreement curtailment	
Environmental (noise, visual, bird/bat)	
Other	
Other/miscellaneous	
Gross to Net Losses	
Gross to Net Multiplier	

¹ Turbine availability is based on values from the Siemens warranty provided by PSE.

² Wake losses and terrain losses modeled as part of gross energy.

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Table 10. BMcD Summary of Energy Yield

Description	Case A	Case B	Case C	Case D
Base Yield (GWh)				
Average Terrain Losses				
Average Wake Losses				
Gross Yield (GWh)				
Gross Capacity Factor				
Total System Losses				
Gross-to-Net Multiplier				
Net Yield (GWh)				
Net Capacity Factor				

3. Comparison of DNV-GEC and BMcD Energy Assessment for Phase I of LSRWP

The differences between the DNV-GEC and BMcD energy assessments include:

1. DNV-GEC used all available data, processed and validated the data; BMcD utilized the DNV-GEC validated data and used data in evenly spaced time periods of years.
2. DNV-GEC uses a more rigorous method to assign mean wind speed at hub height than BMcD
 - DNV-GEC estimates met tower hub height wind speed as follows:
 - Extrapolate shear values to met tower wind speed.
 - Apply long-term wind speed adjustment to hub height met tower wind speed.
 - Estimate turbine height hub height wind speed based on long-term adjusted hub height met tower wind speeds, wind flow modeling, elevation and exposure and wind flow across terrain.
 - BMcD estimates met tower hub height wind speed by selecting the closest met tower to turbine location and extrapolating shear to turbine hub height.
3. DNV-GEC uses an average of four wake models, whereas BMcD uses one wake model.
4. DNV-GEC did not include wake effect from Hopkins Ridge wind project, though BMcD did (and estimates the impact <1%).
5. DNV-GEC estimates losses more conservatively than BMcD.

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- DNV-GEC provides wake model losses, whereas BMcD includes wake model and terrain losses in the Gross Energy number.

4. Potential Impacts of ENSO

El Niño Southern Oscillation (ENSO) is a naturally occurring atmospheric-oceanic climate phenomena resulting in changes to sea-surface temperatures, convective rainfall, surface pressure and atmospheric circulation across the equatorial Pacific Ocean. El Niño is the warm phase of ENSO and La Niña is the cold phase of ENSO. El Niño occurs when the sea-surface temperatures in the equatorial Pacific Ocean between 170°W and 120°W and 5°N and 5°S increase above 0.5°C. El Niño events typically occur every 2-7 years and last 9-12 months. The impacts of El Niño are felt globally. Specifically in the Pacific Northwest, El Niño impacts typically include warmer winters with less precipitation (hence fewer storms and less wind), while La Niña events have colder winters and precipitation (more storms and more wind).

Examining Hopkins Ridge and Wild Horse Wind Project net capacity factor (NCF), El Niño and La Niña appears to impact production at both facilities (Figure 2). During the El Niño event that began June 2009, NCF is lower than compared during a La Niña event or Neutral event (white shading). Correspondingly, the mean wind speed is also lower during the El Niño event.

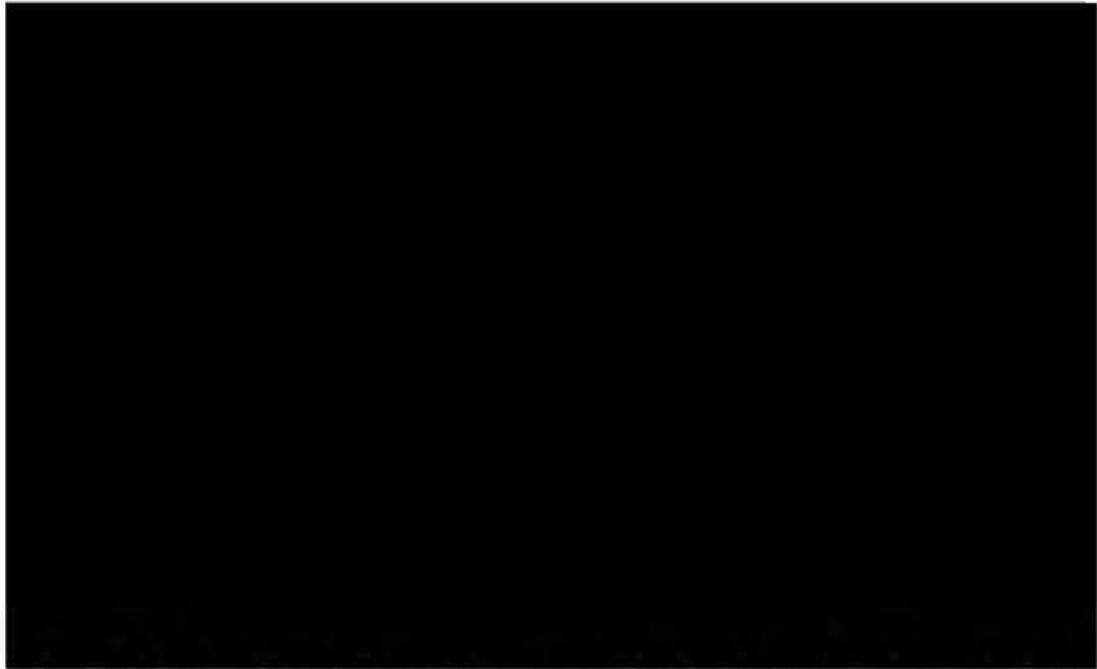


Figure 2. Actual Hopkins Ridge Wind Project NCF and Wild Horse Wind Project NCF and observed Hopkins Ridge mean wind speed with El Niño and La Niña events.

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Exhibit P-1

**Draft DNV-GEC Wind Resource and Energy Assessment,
March 2010**



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Wind Resource and Energy Assessment

Lower Snake River Phase I Wind Power

Project

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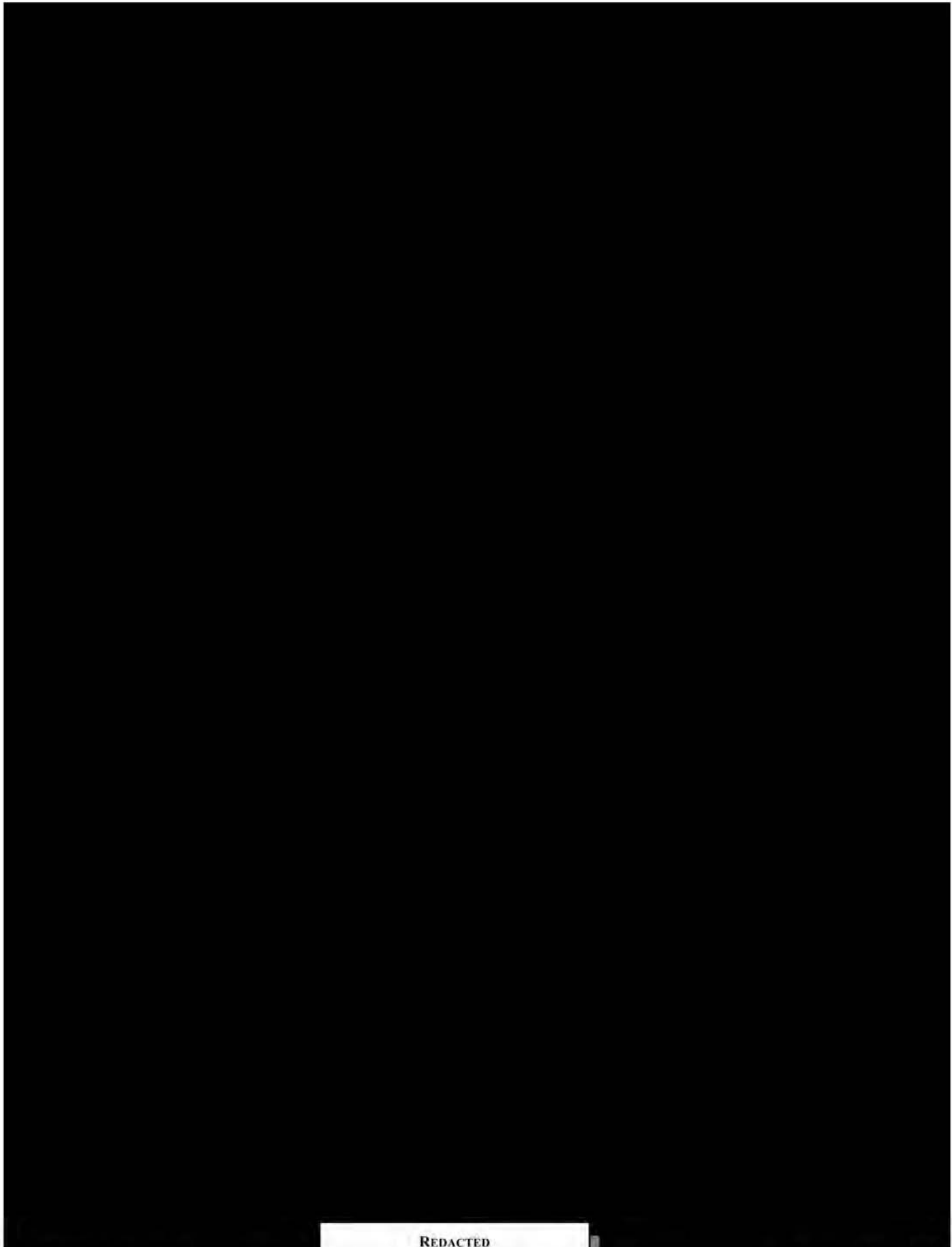
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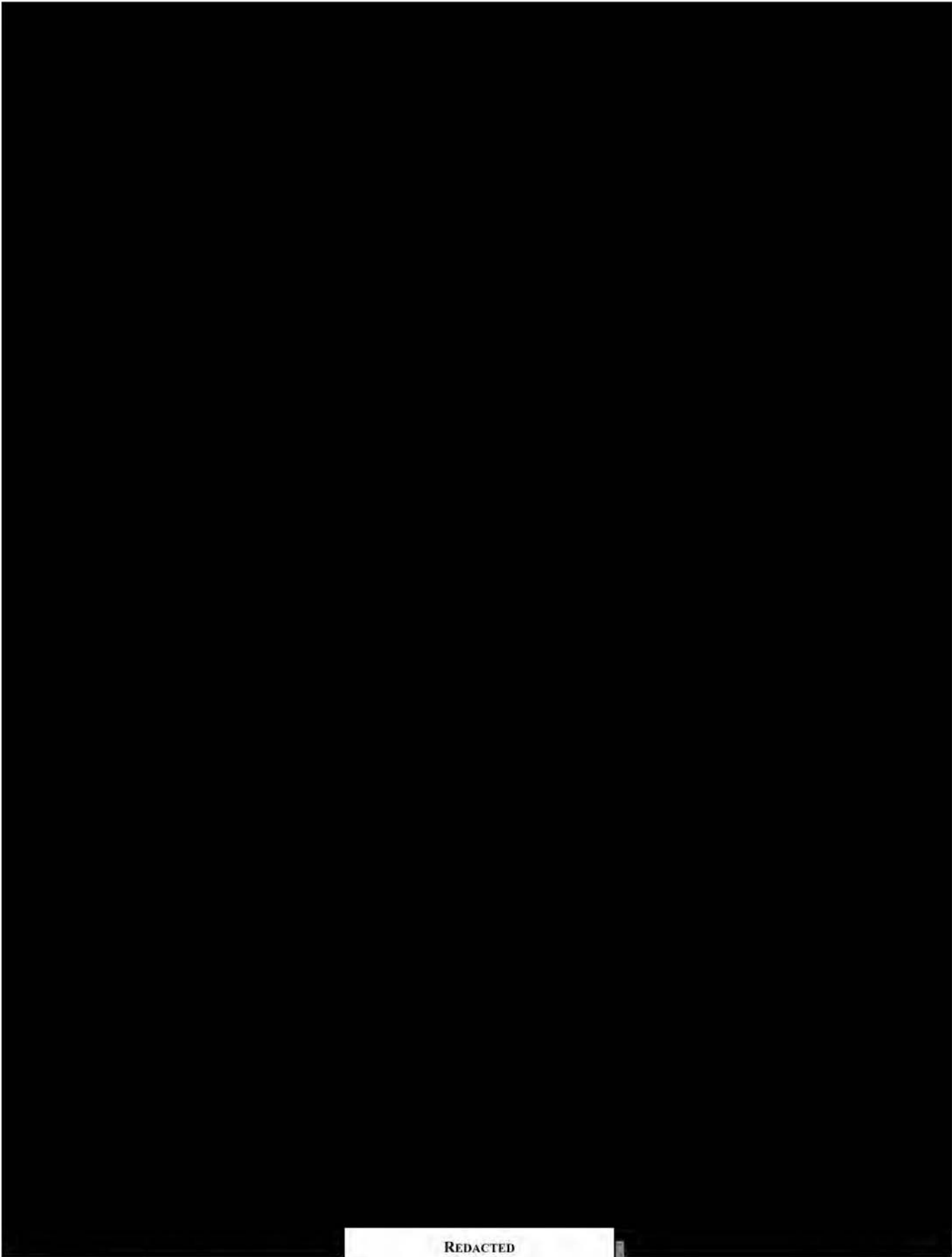
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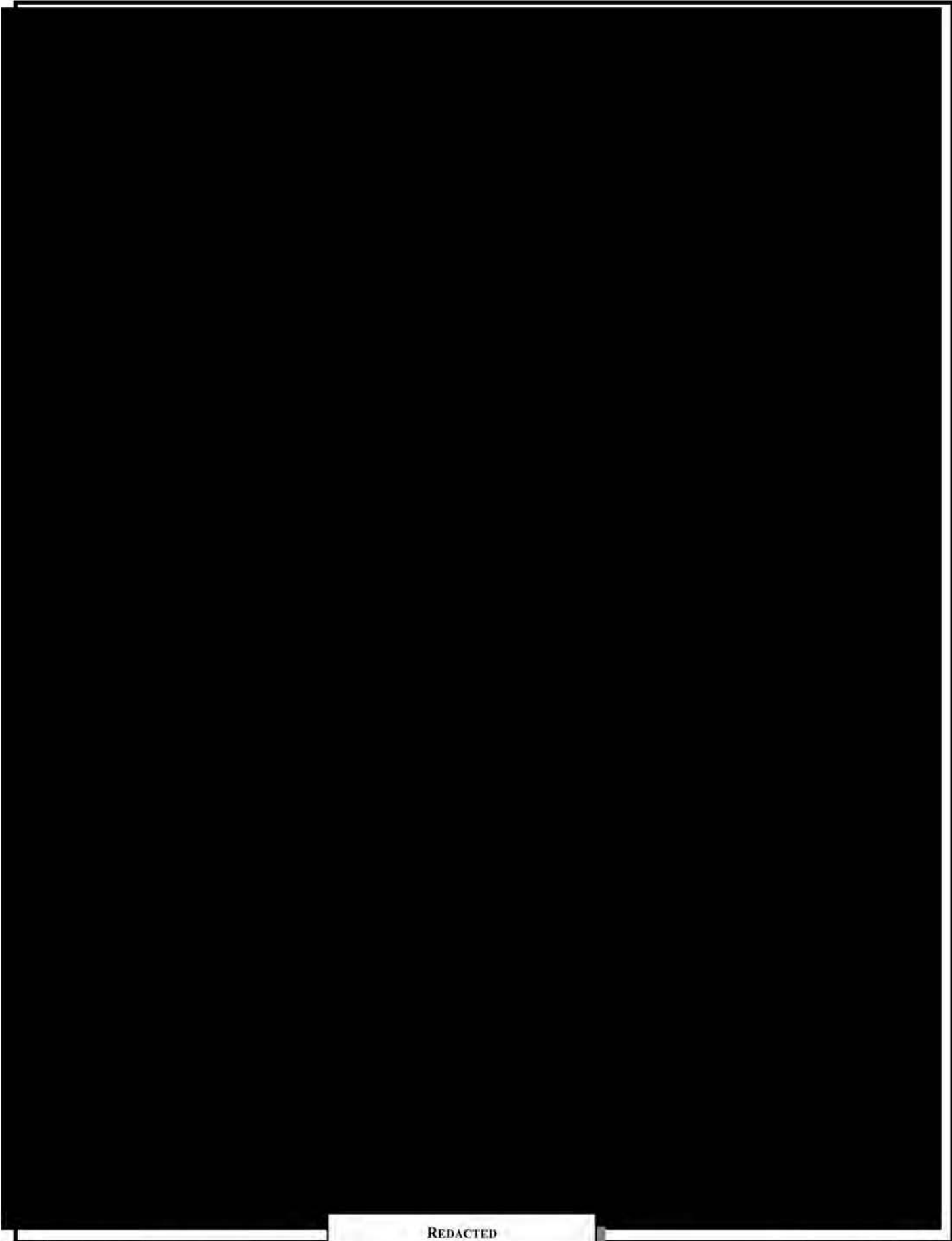
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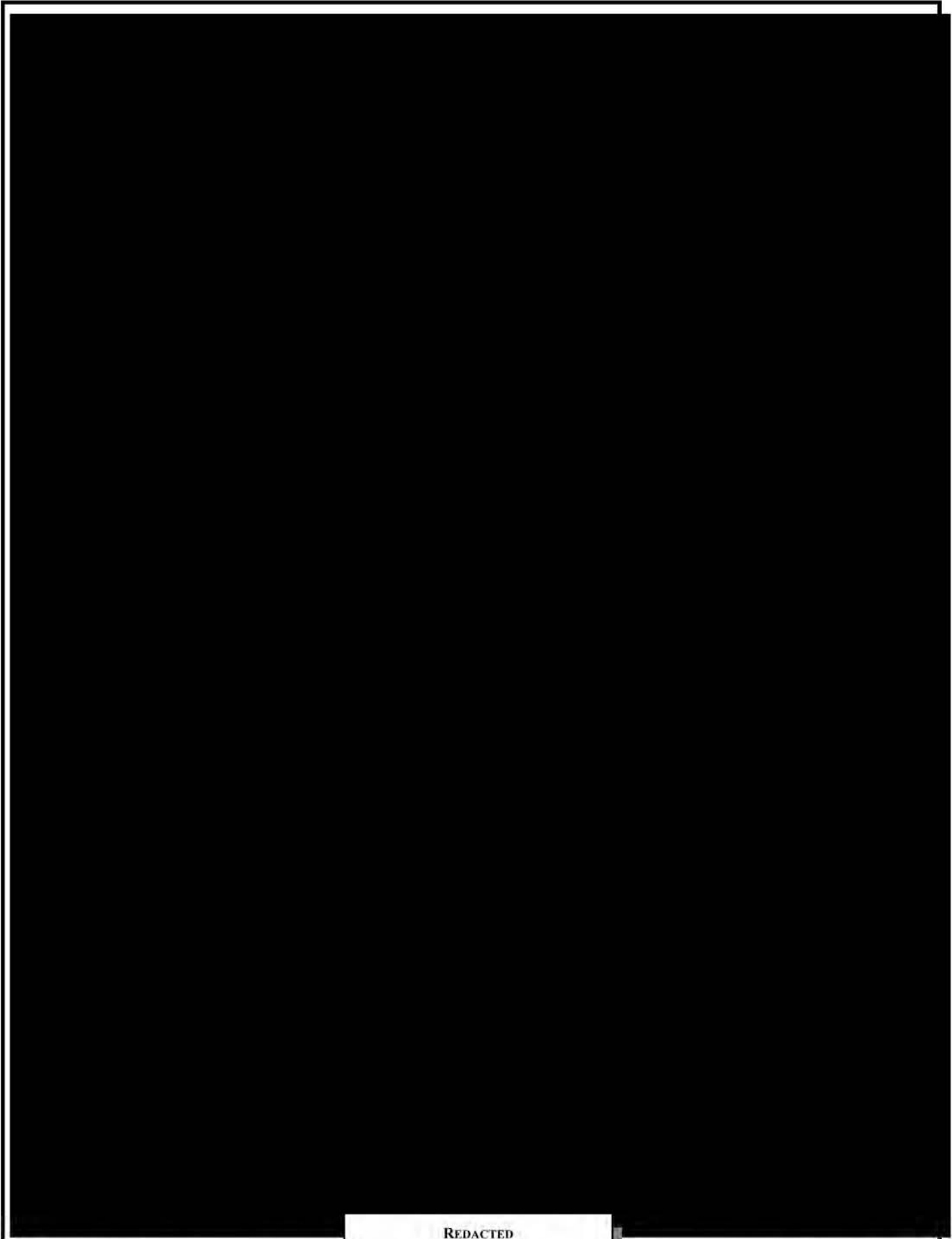




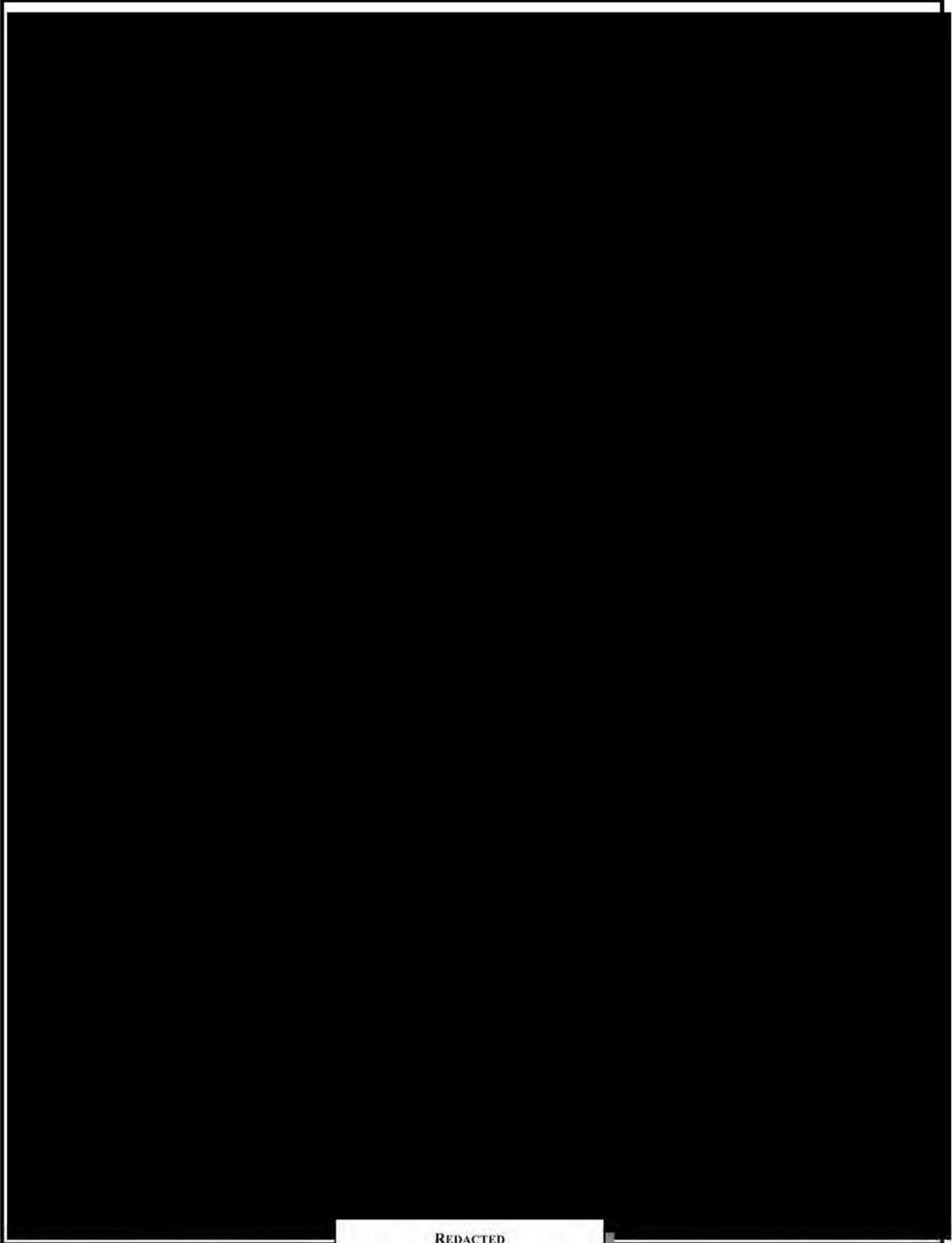
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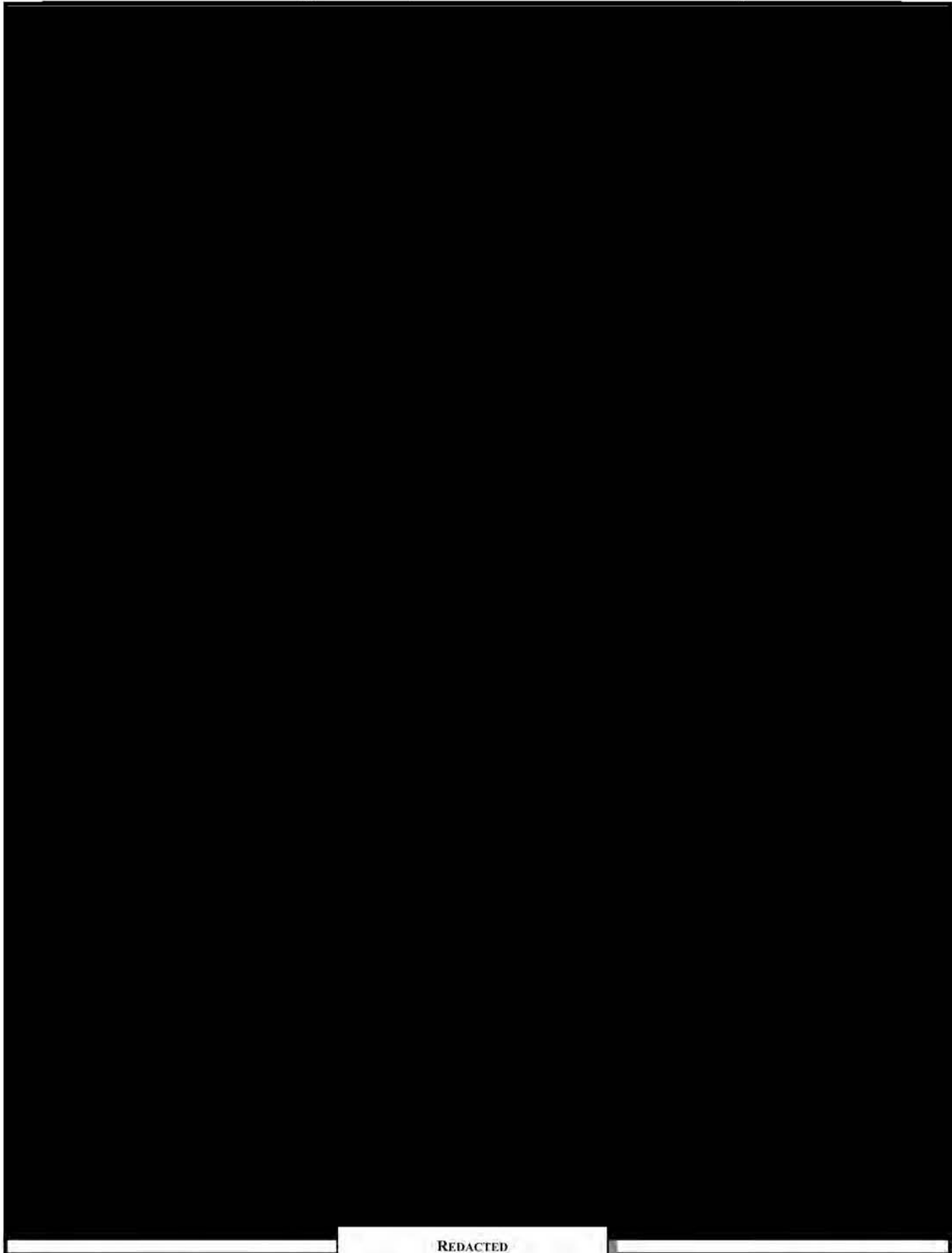
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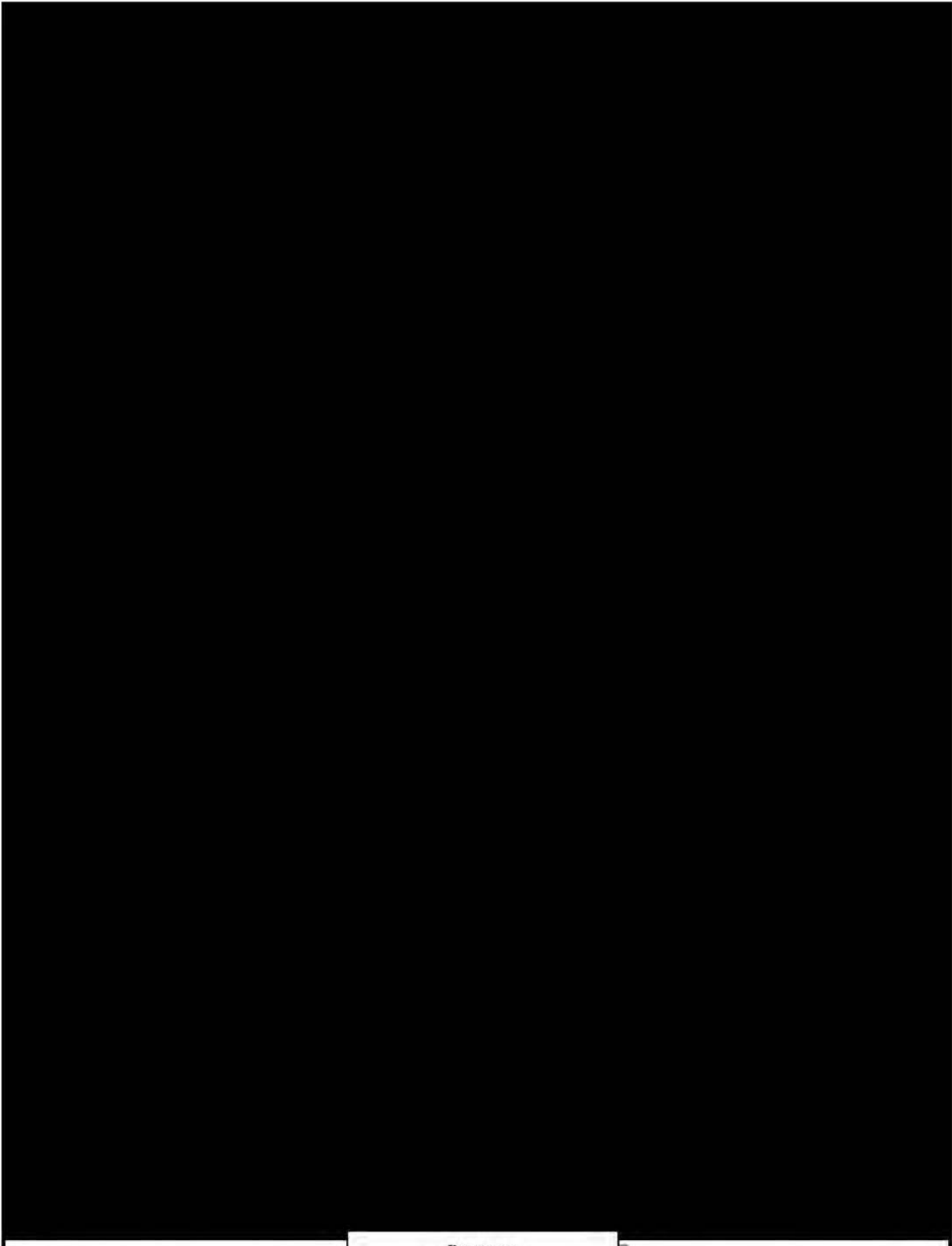
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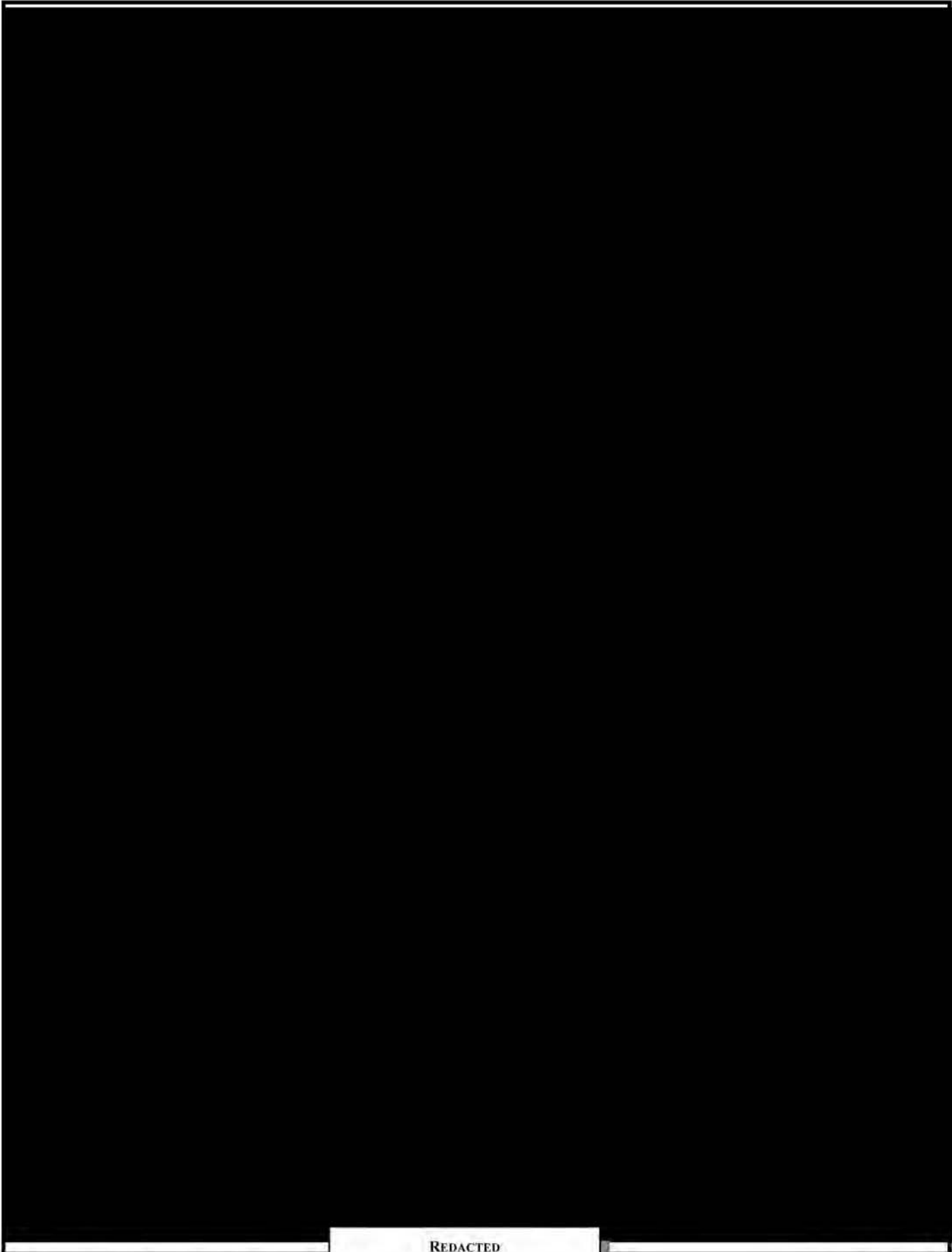
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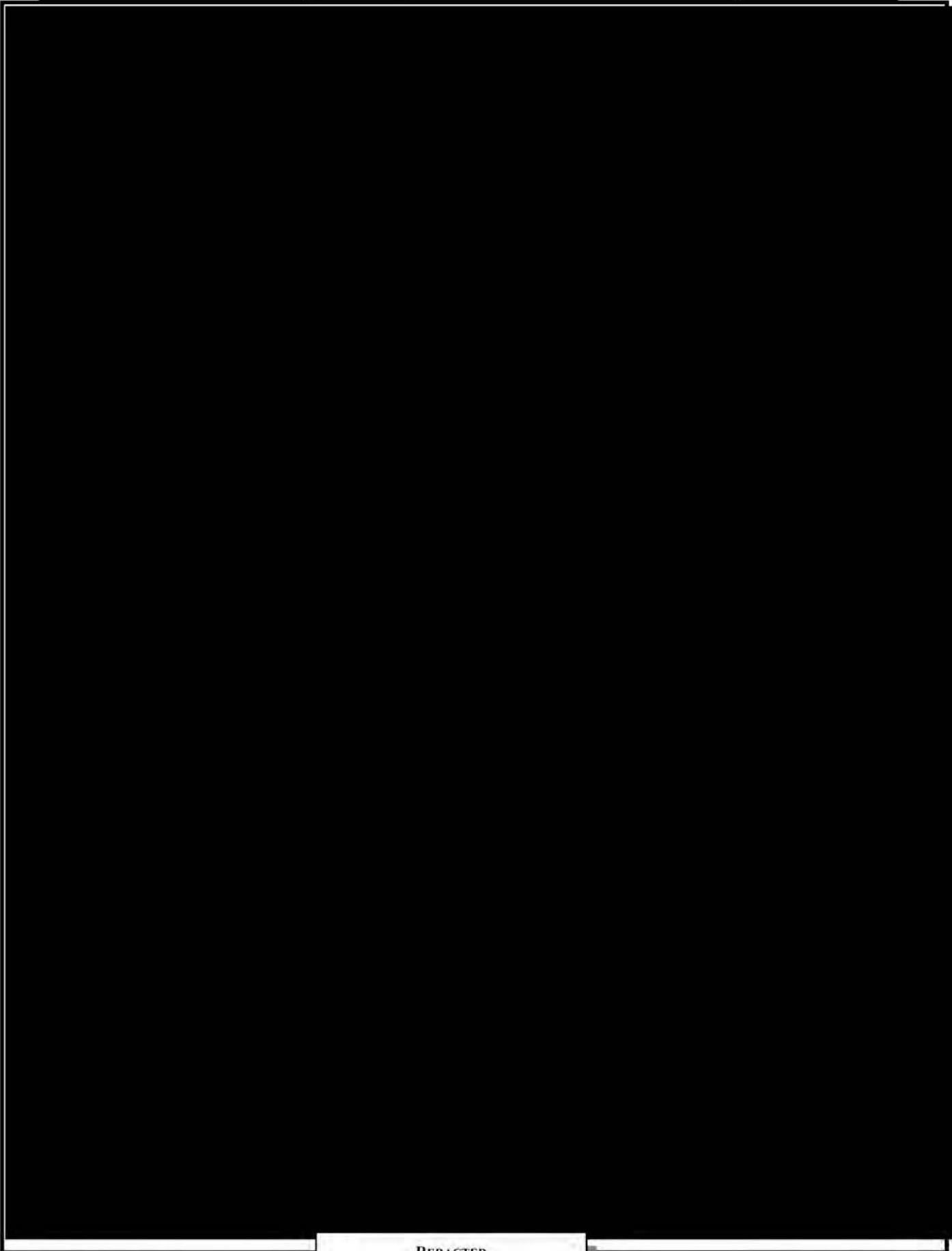
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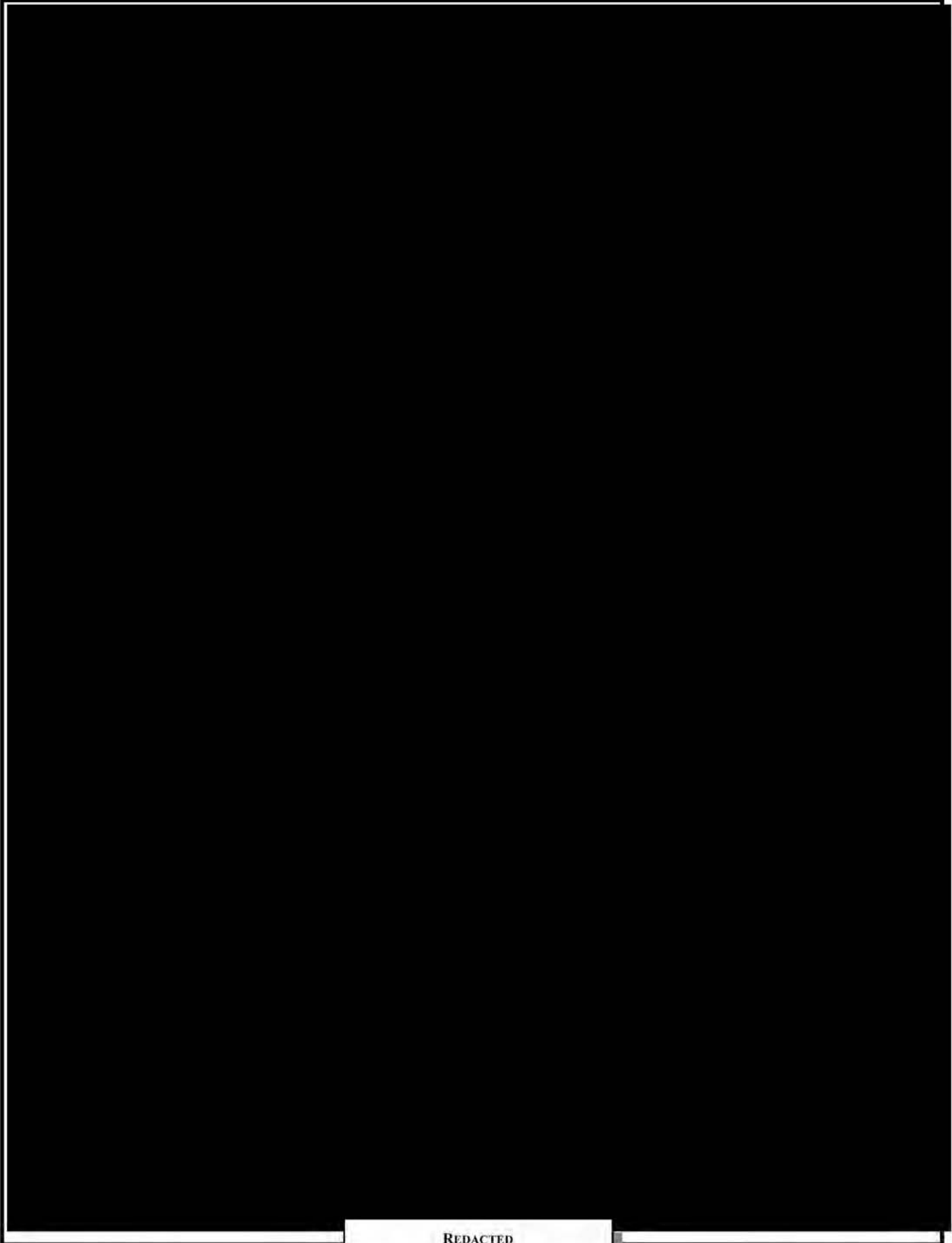


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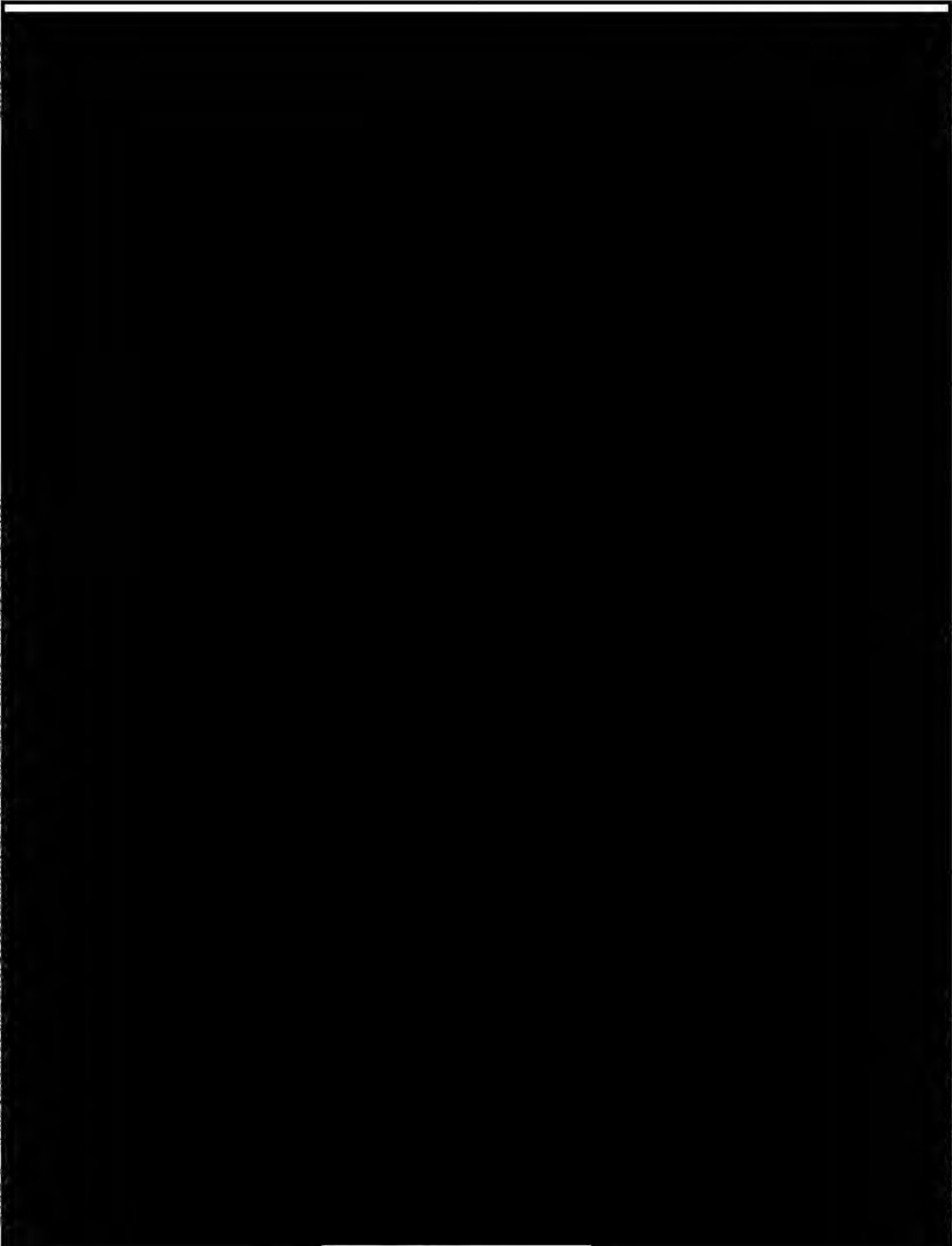


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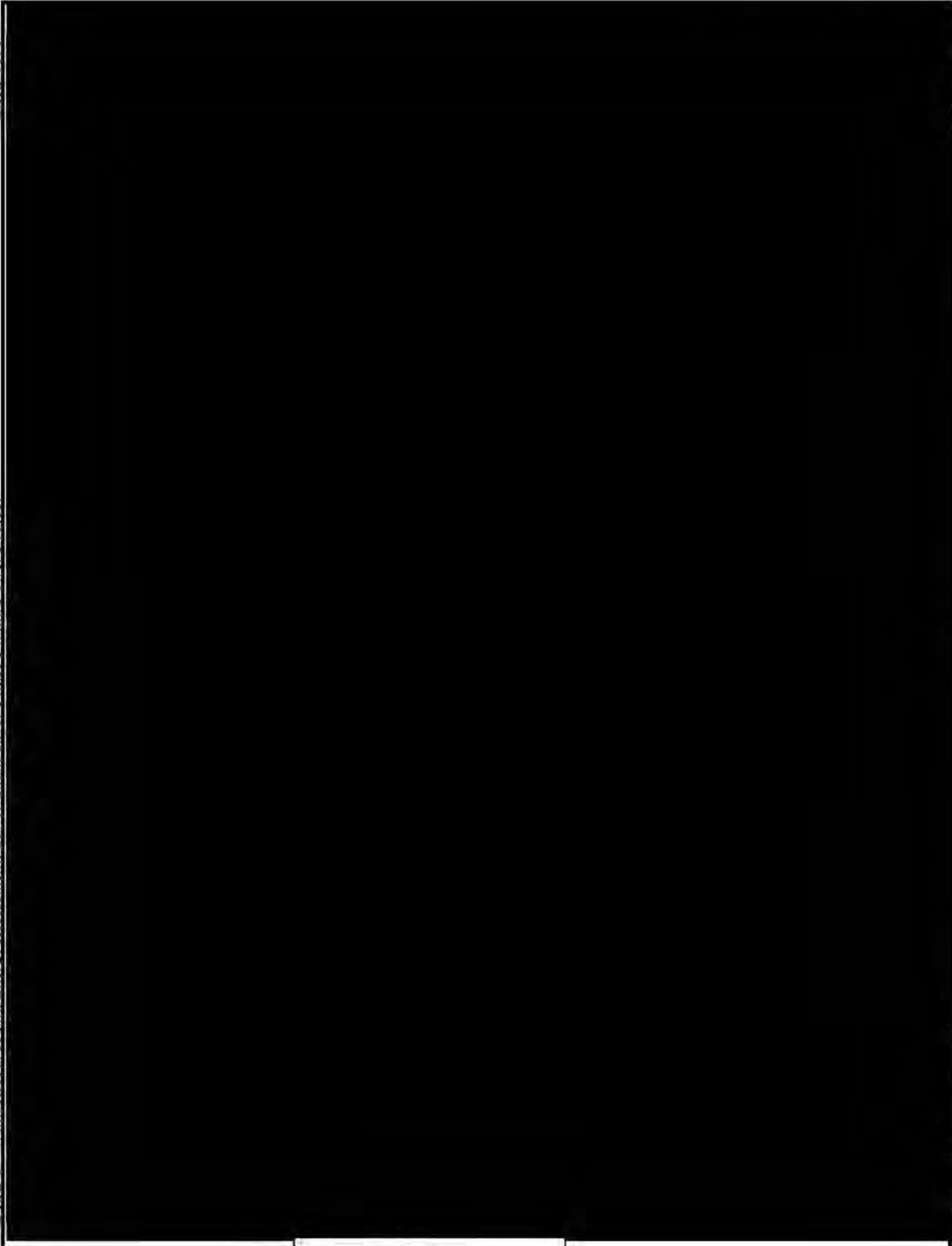
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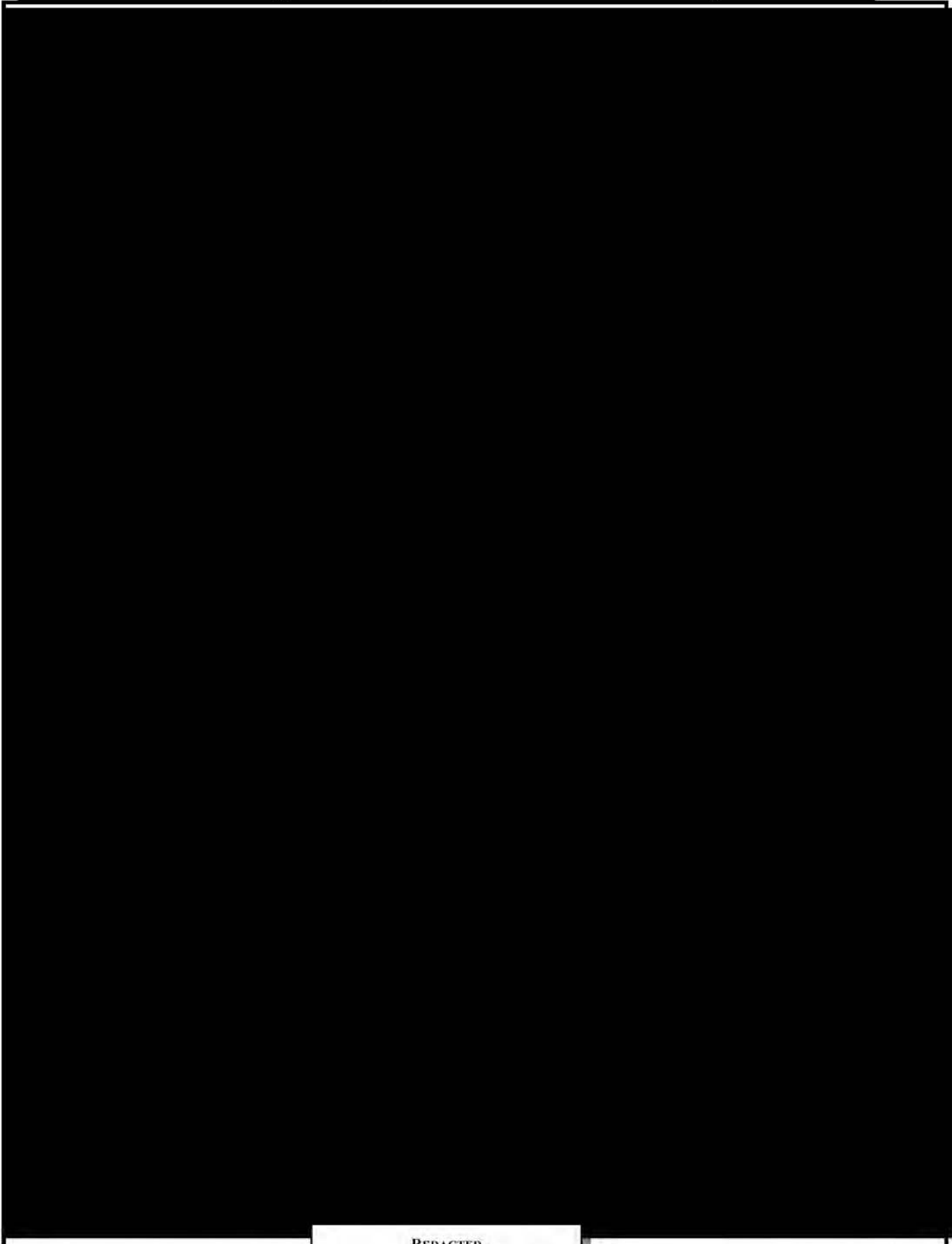
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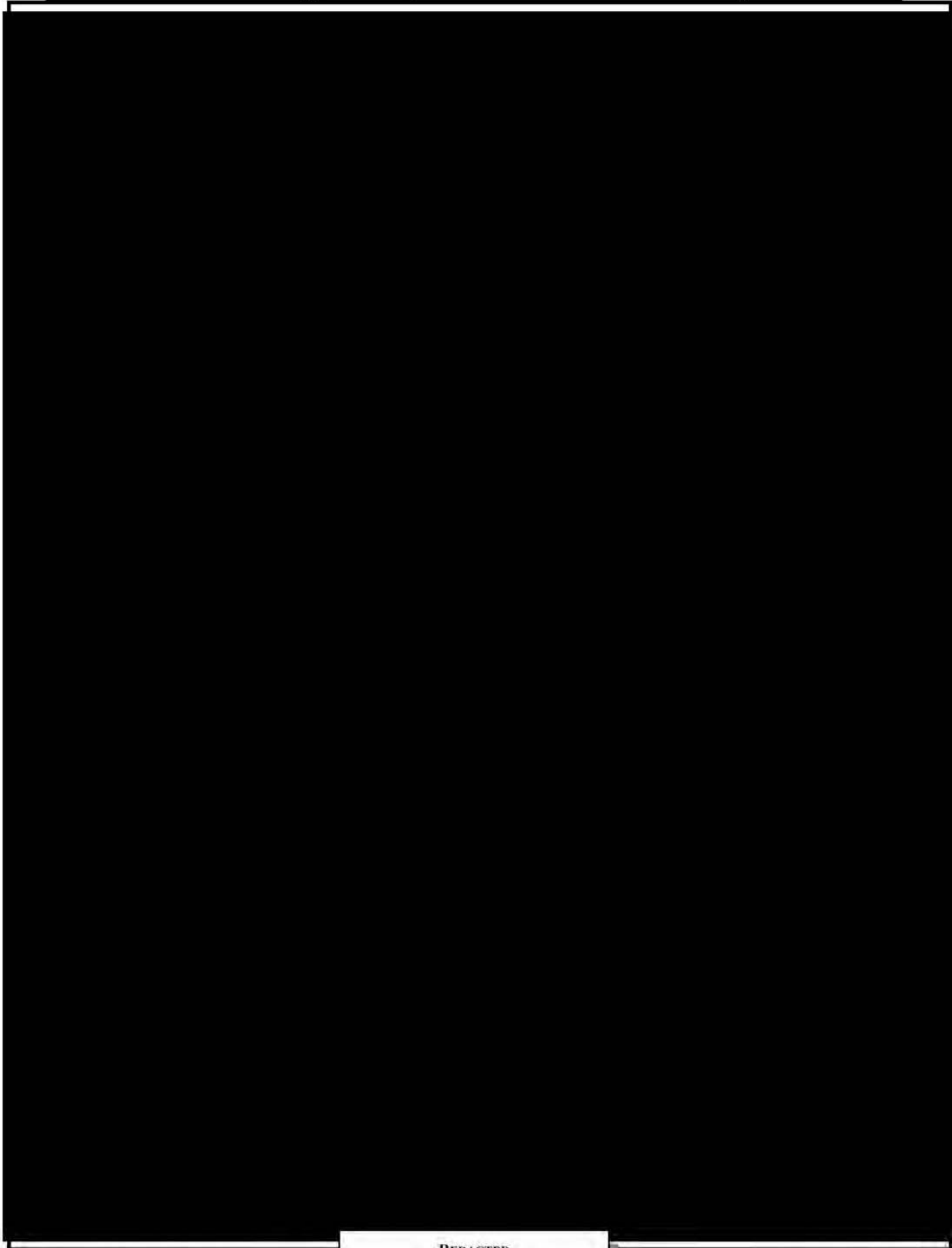
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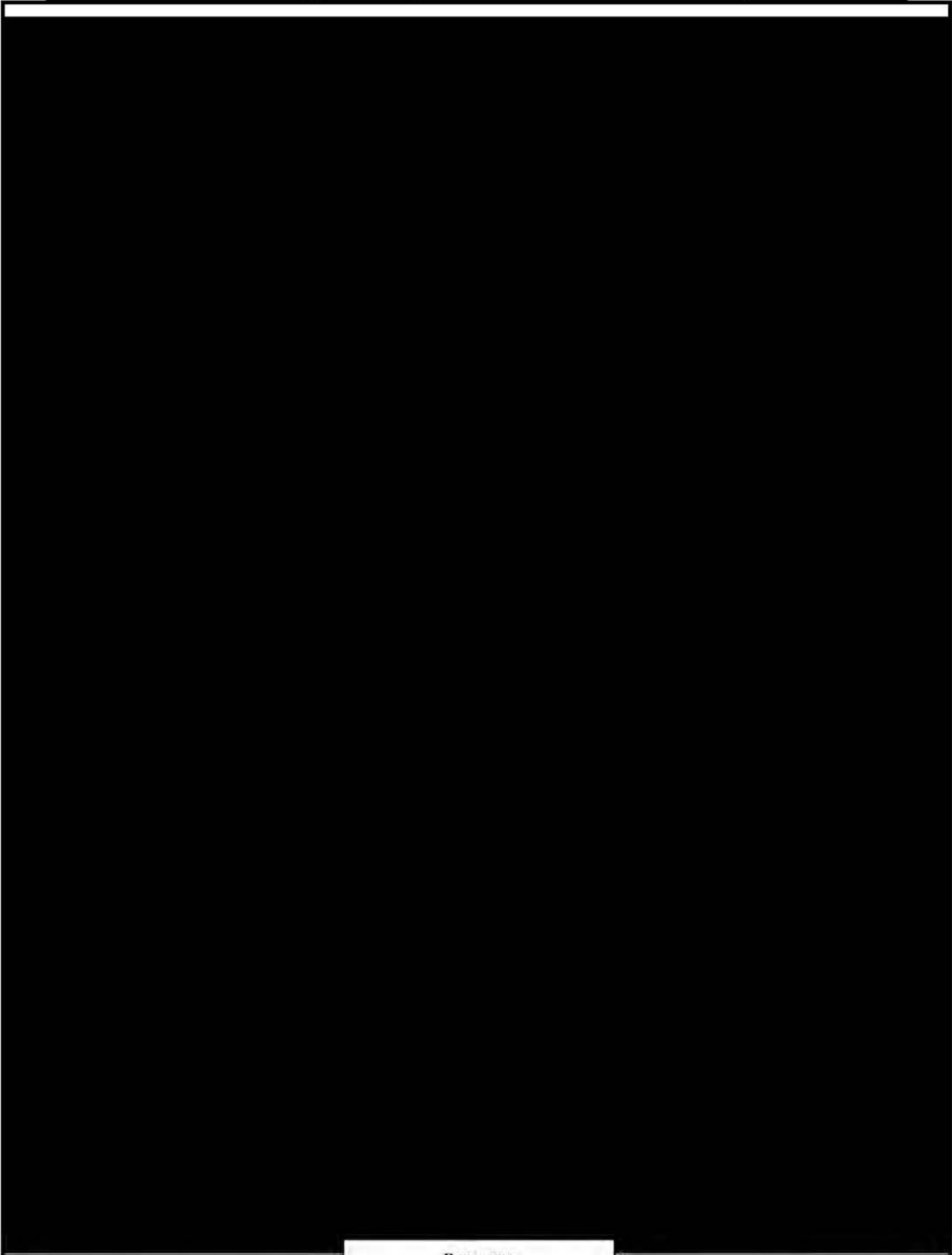


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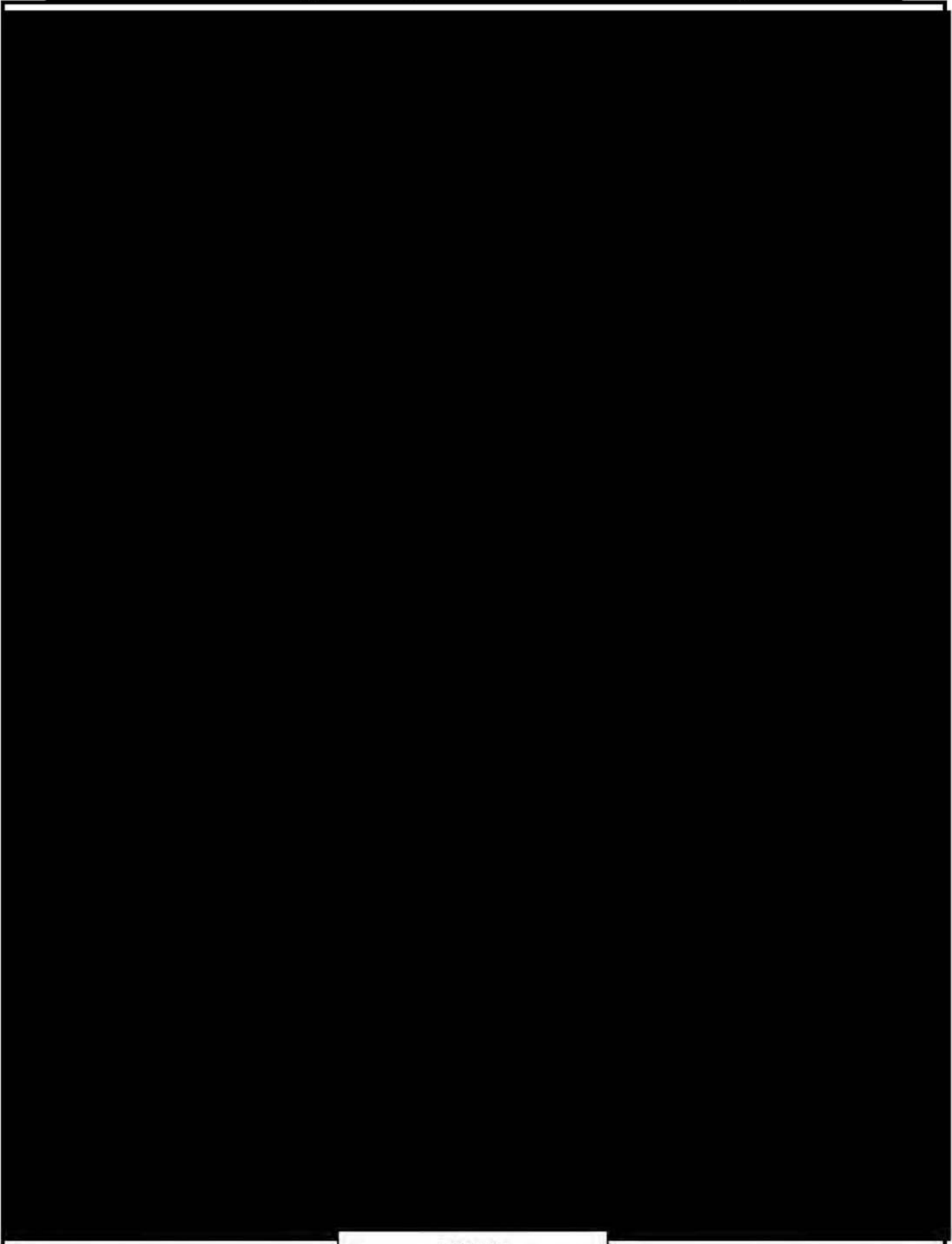


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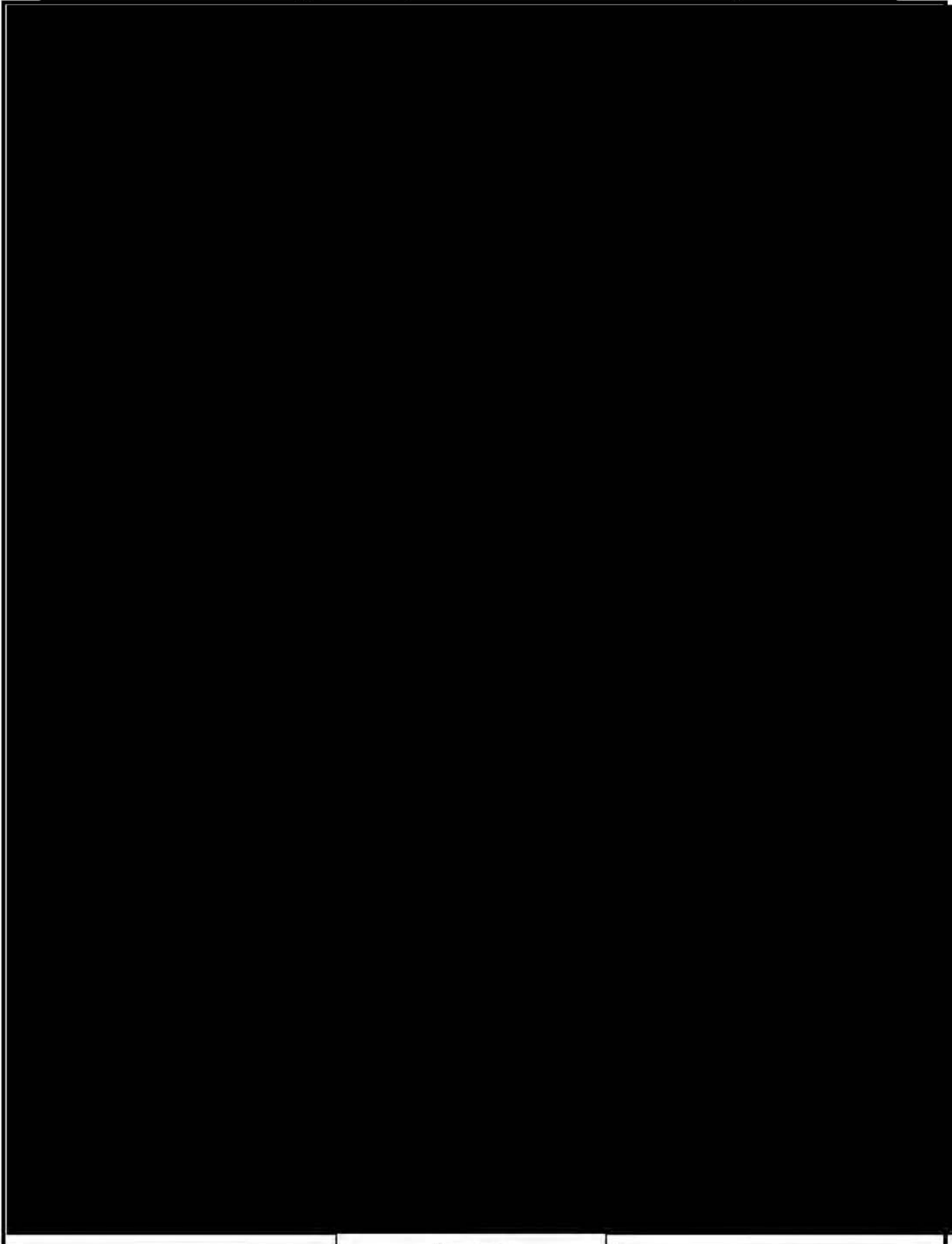


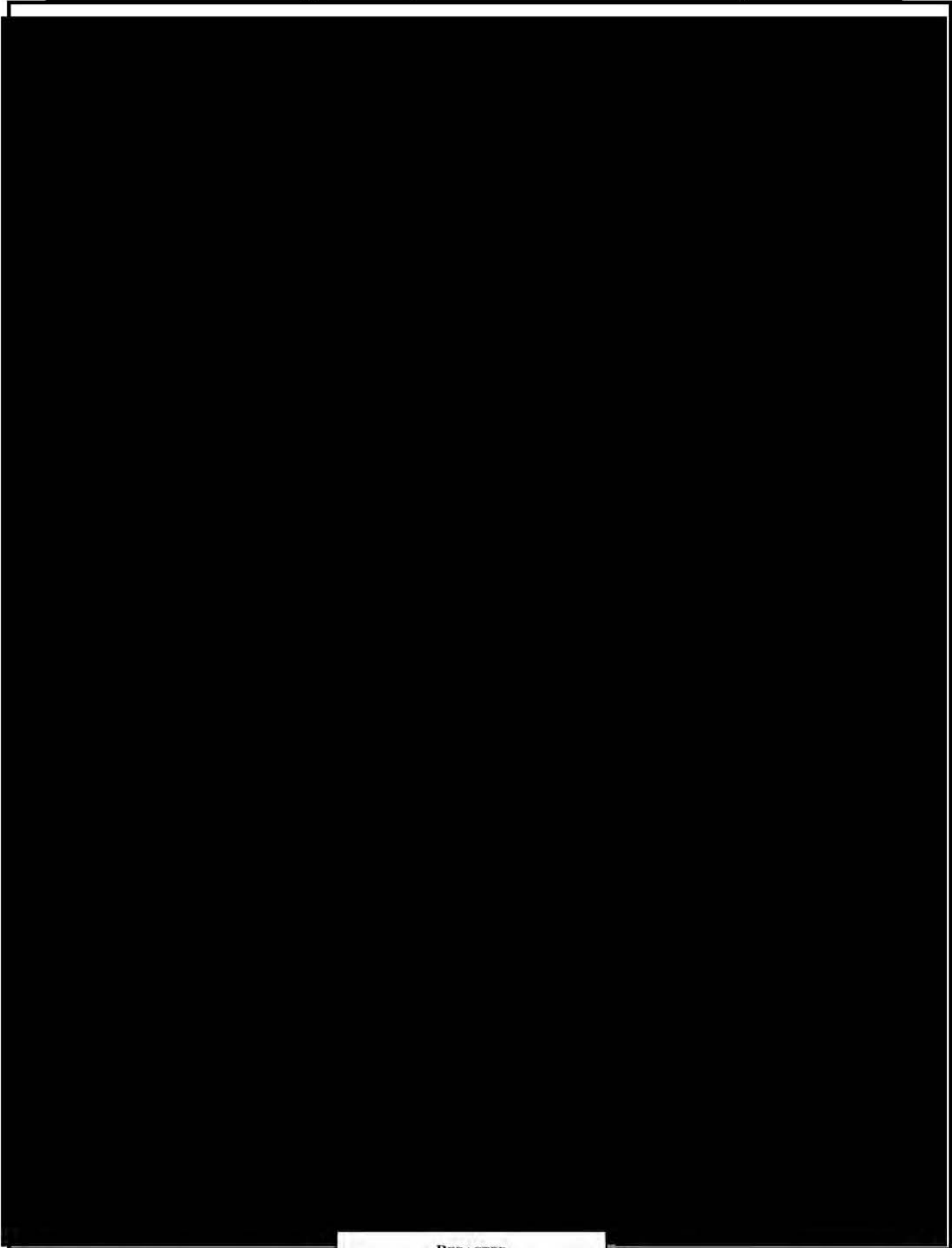


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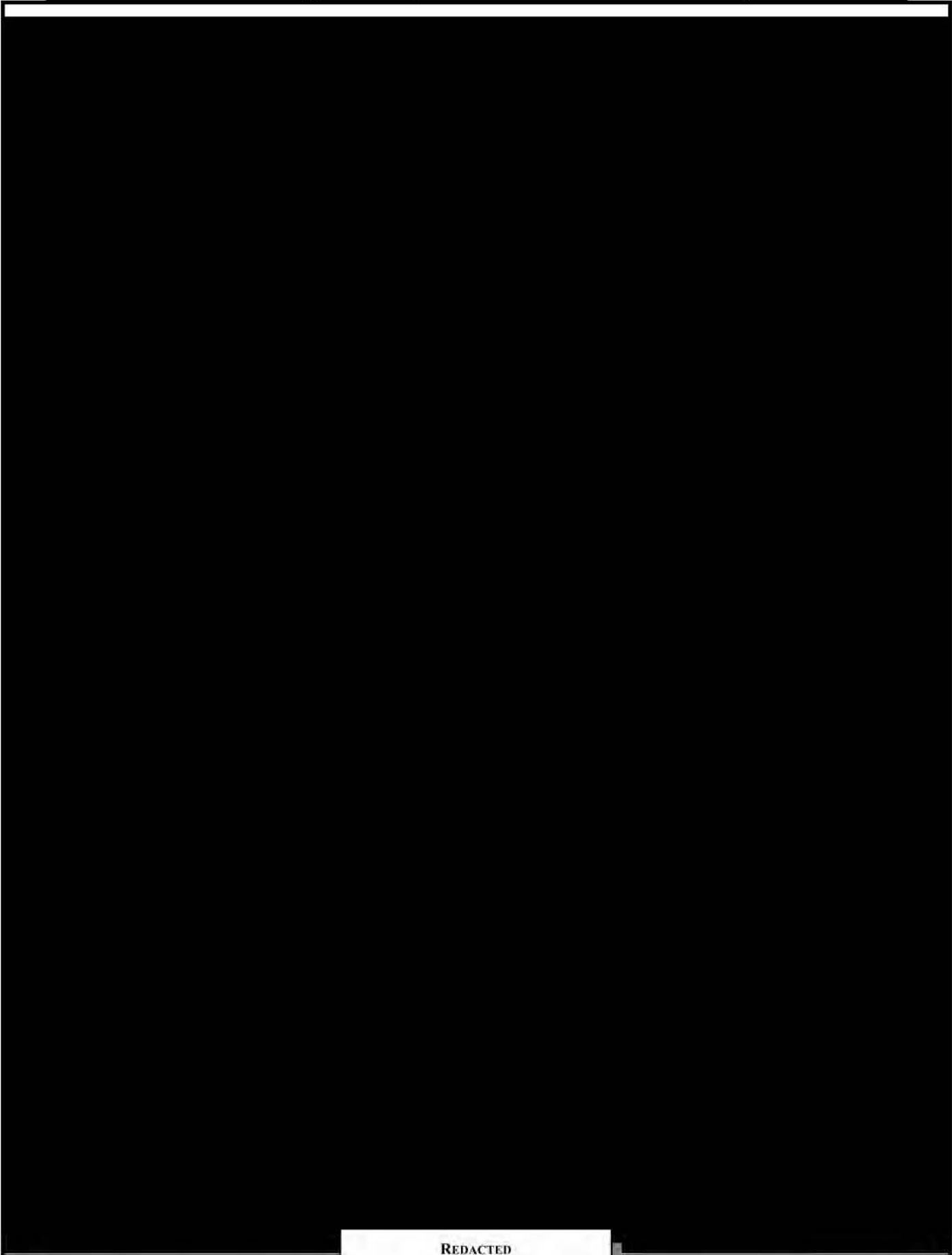


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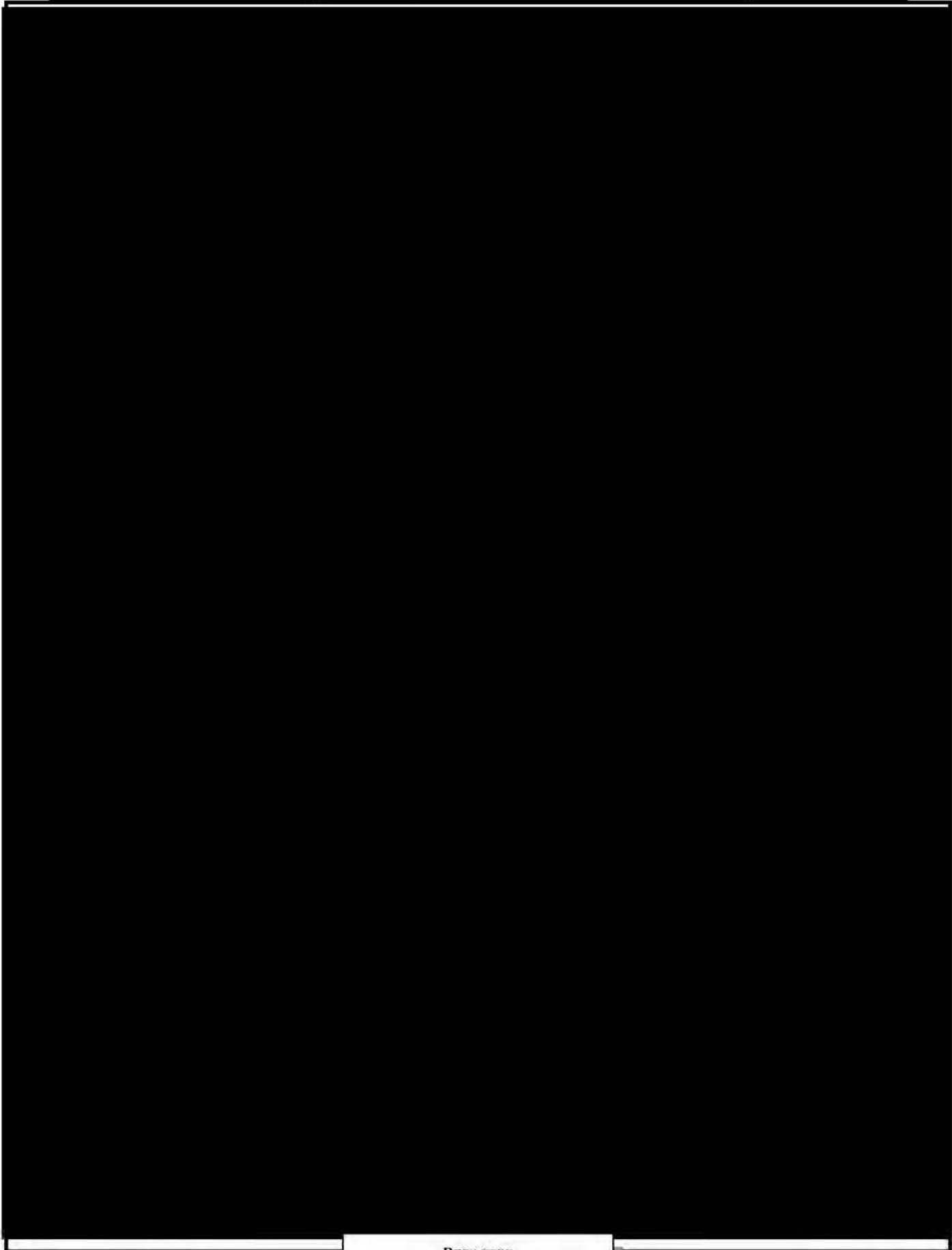


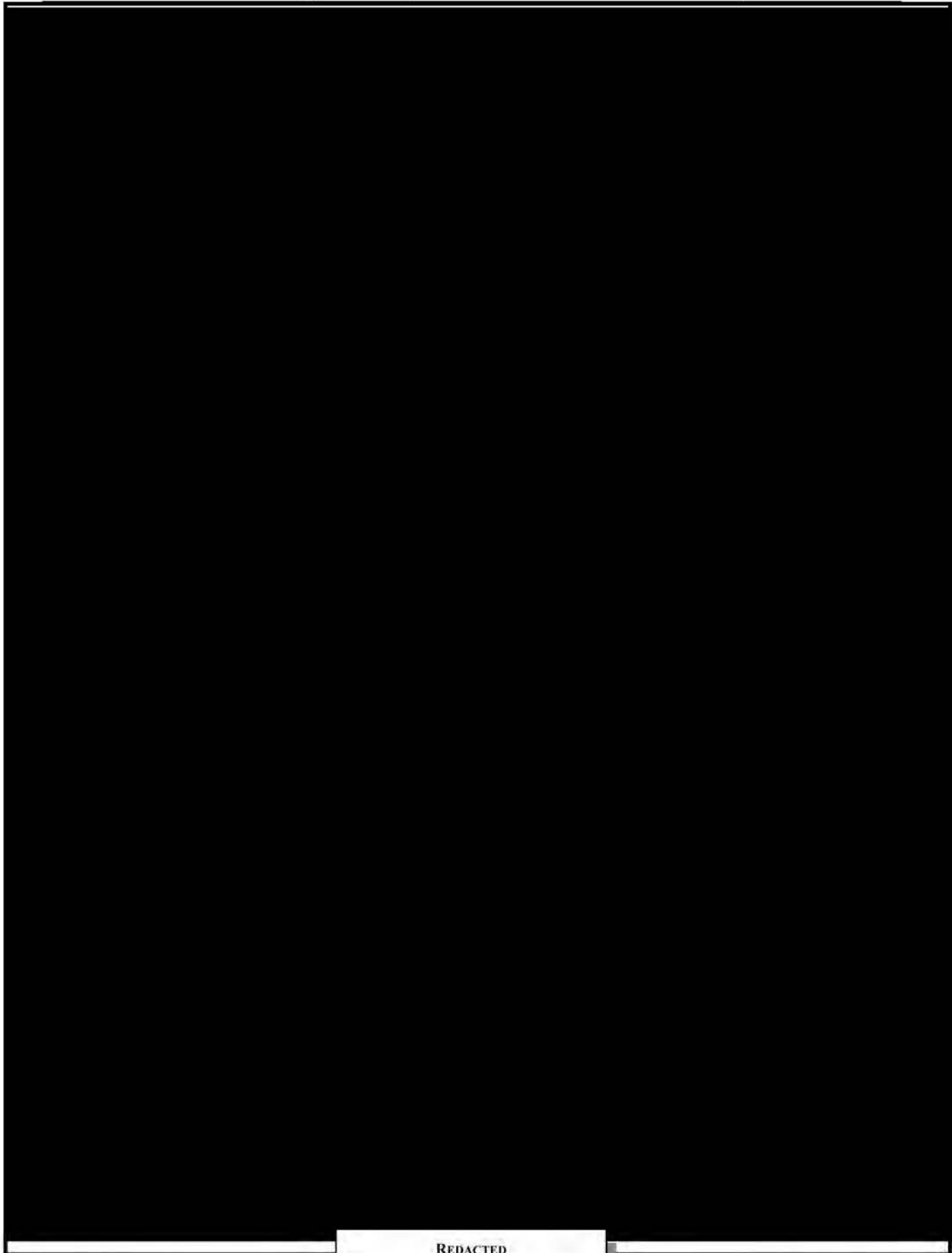


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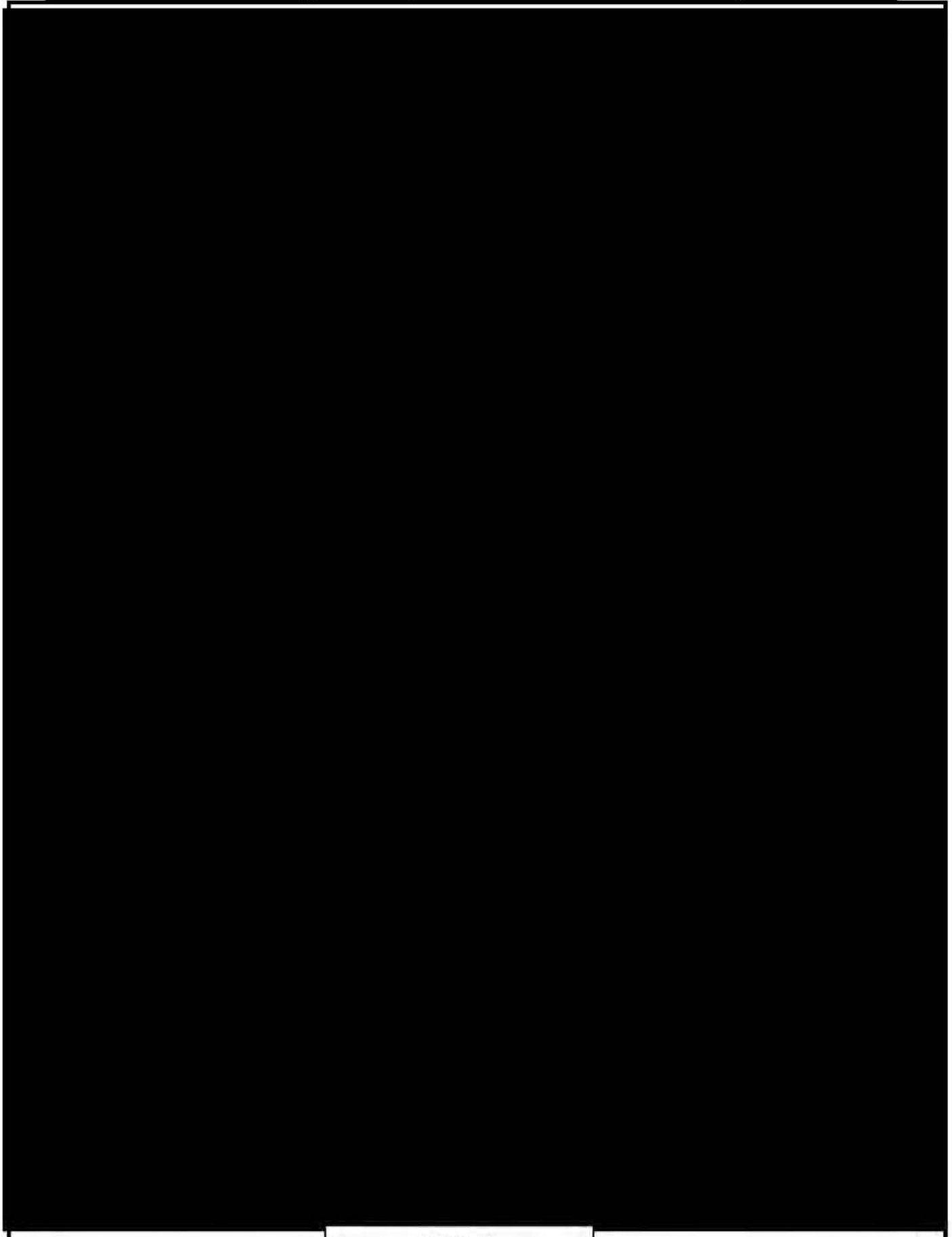


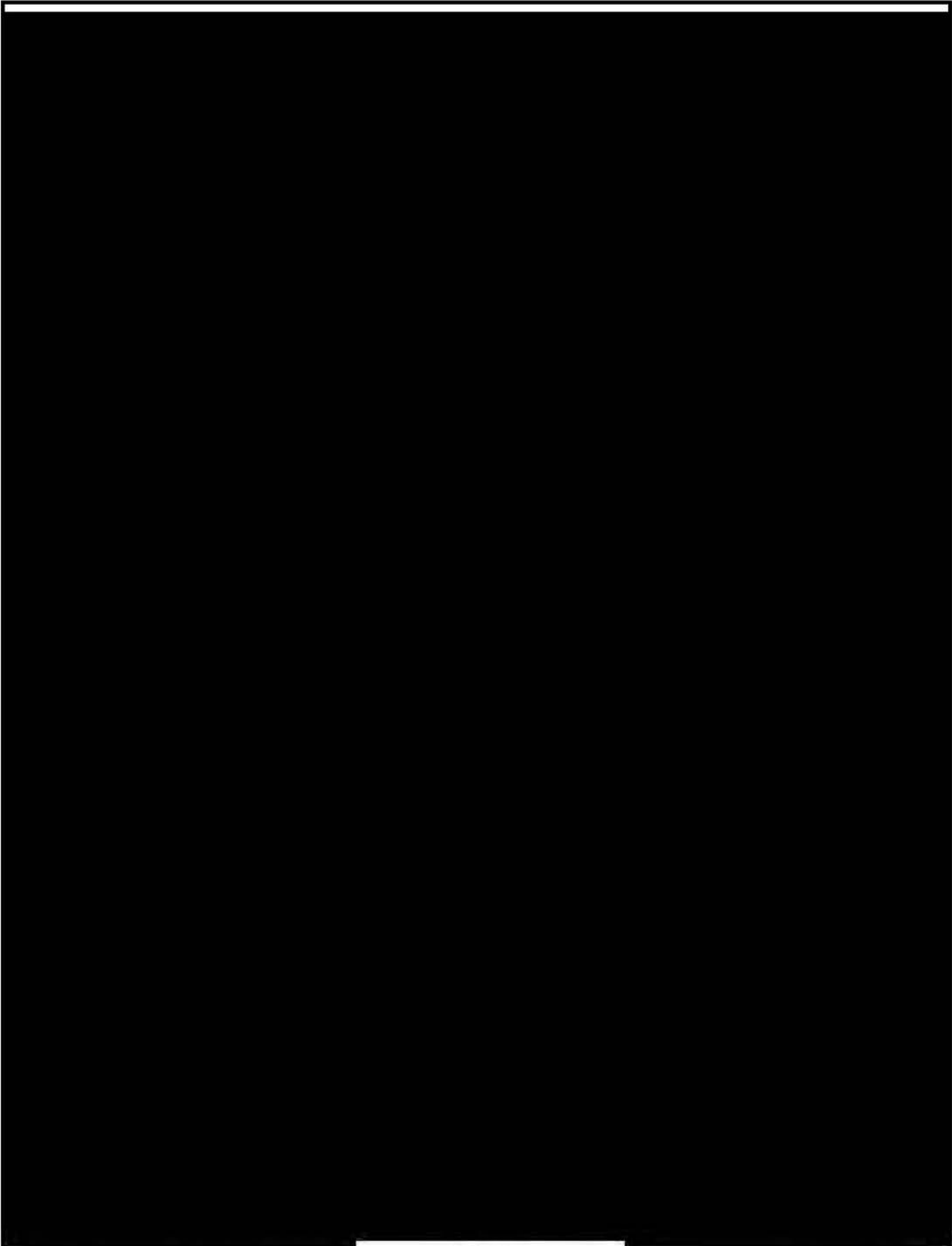
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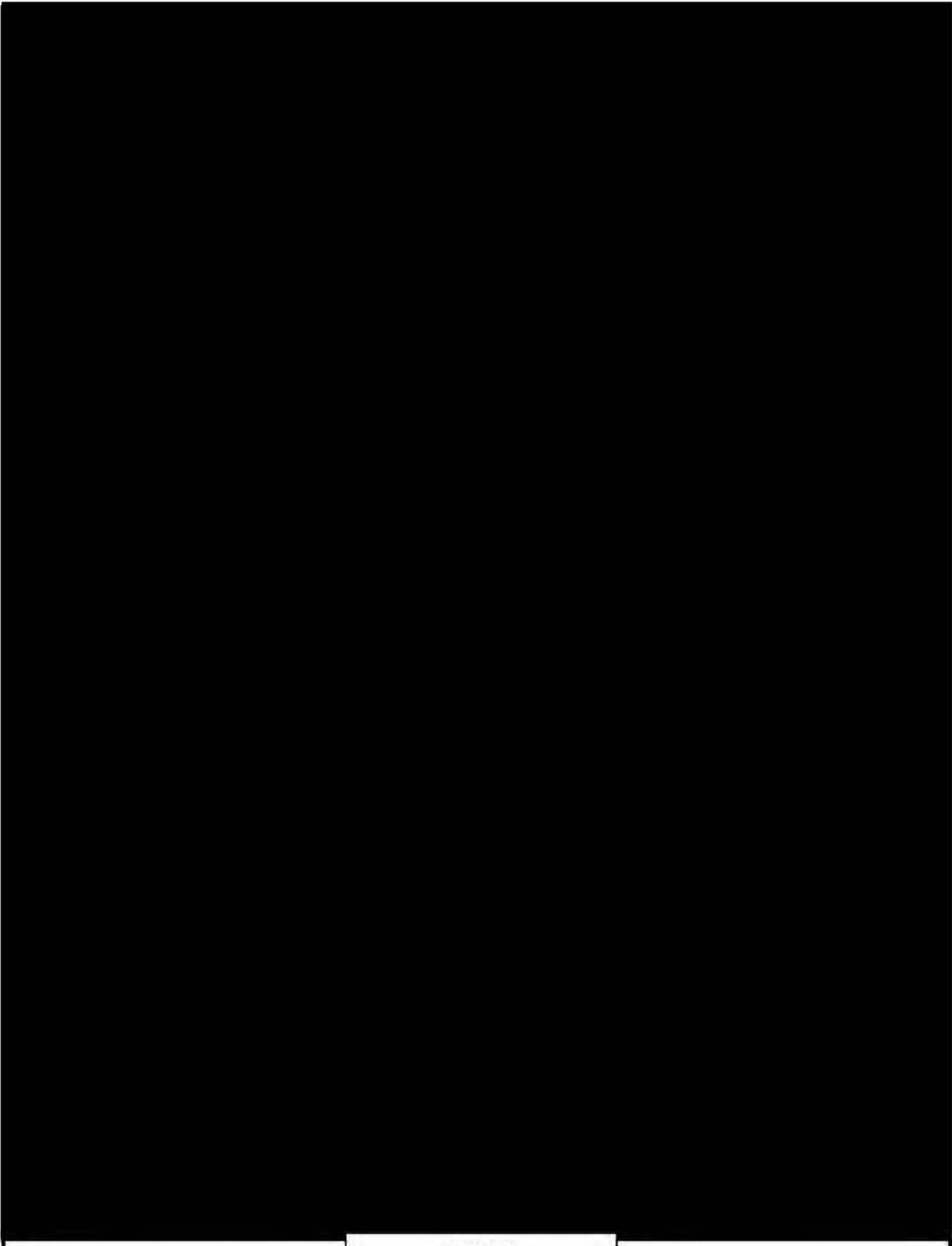


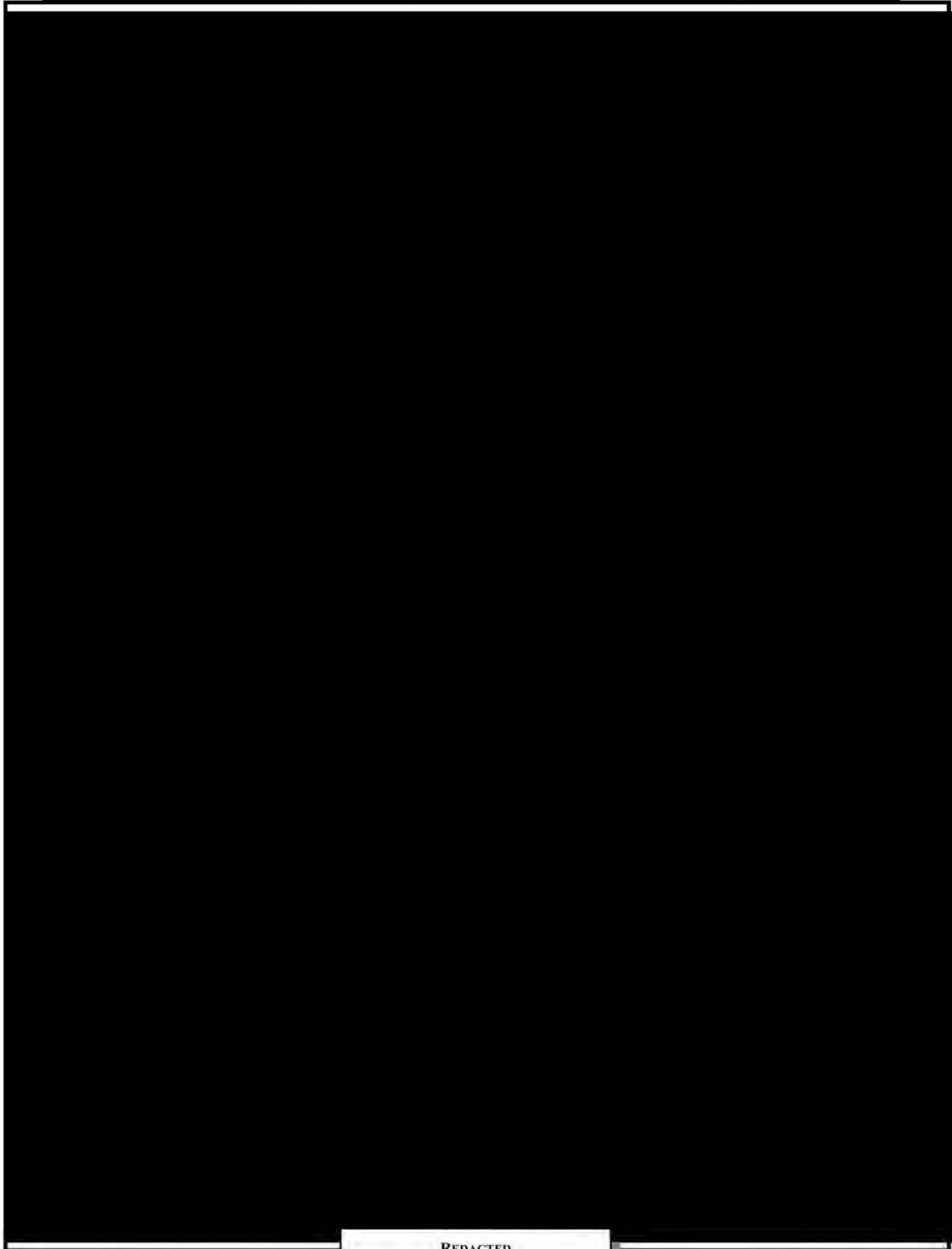


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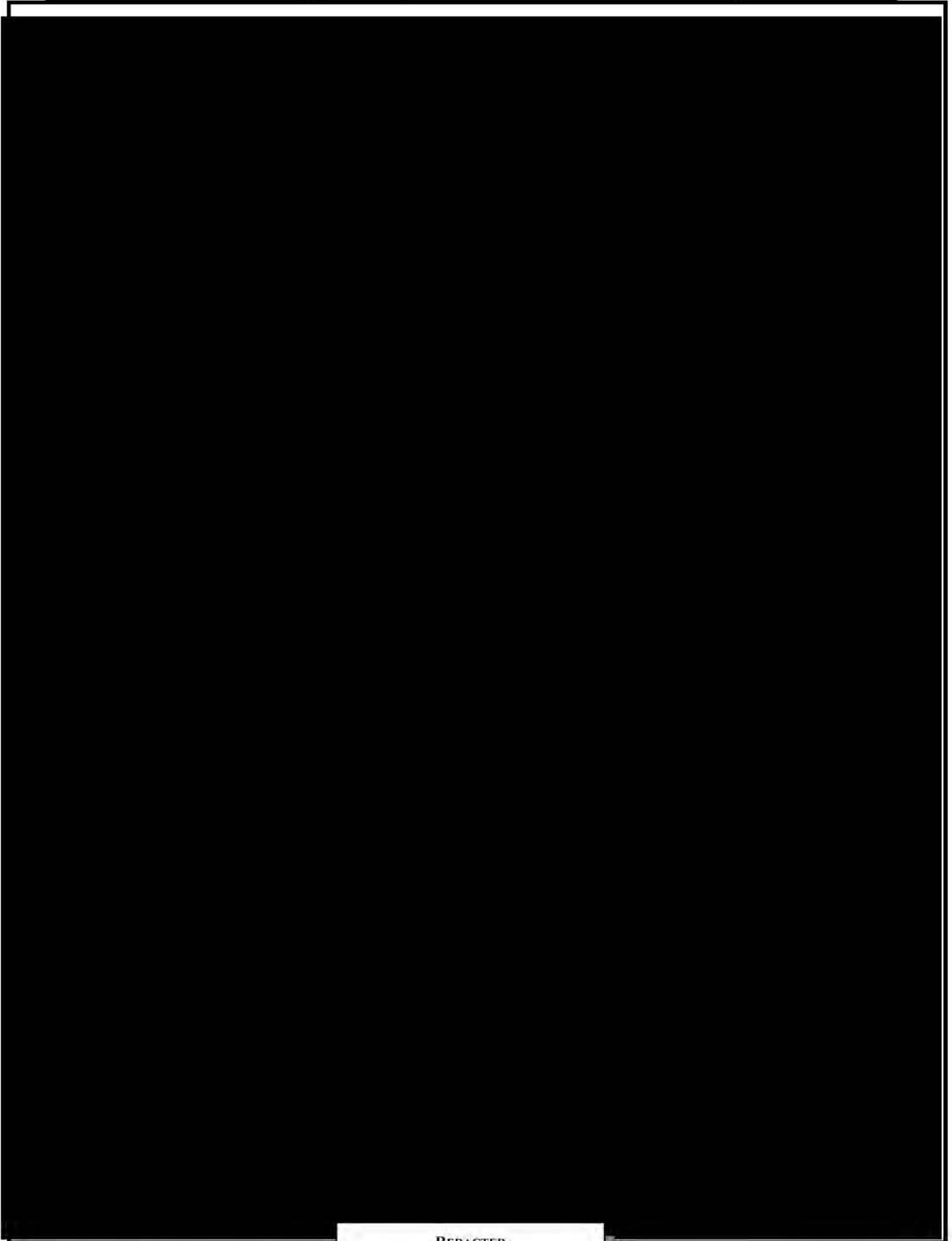




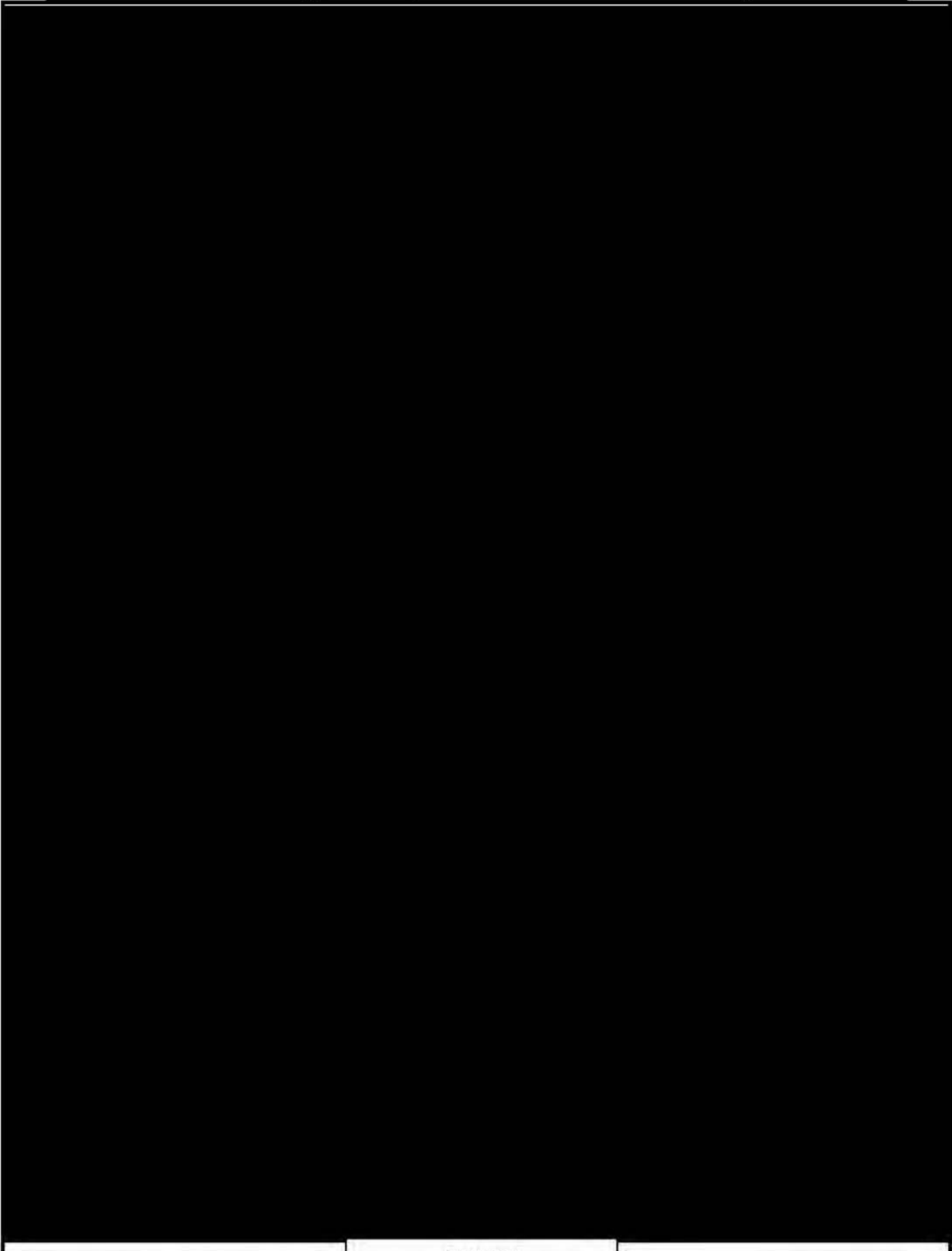


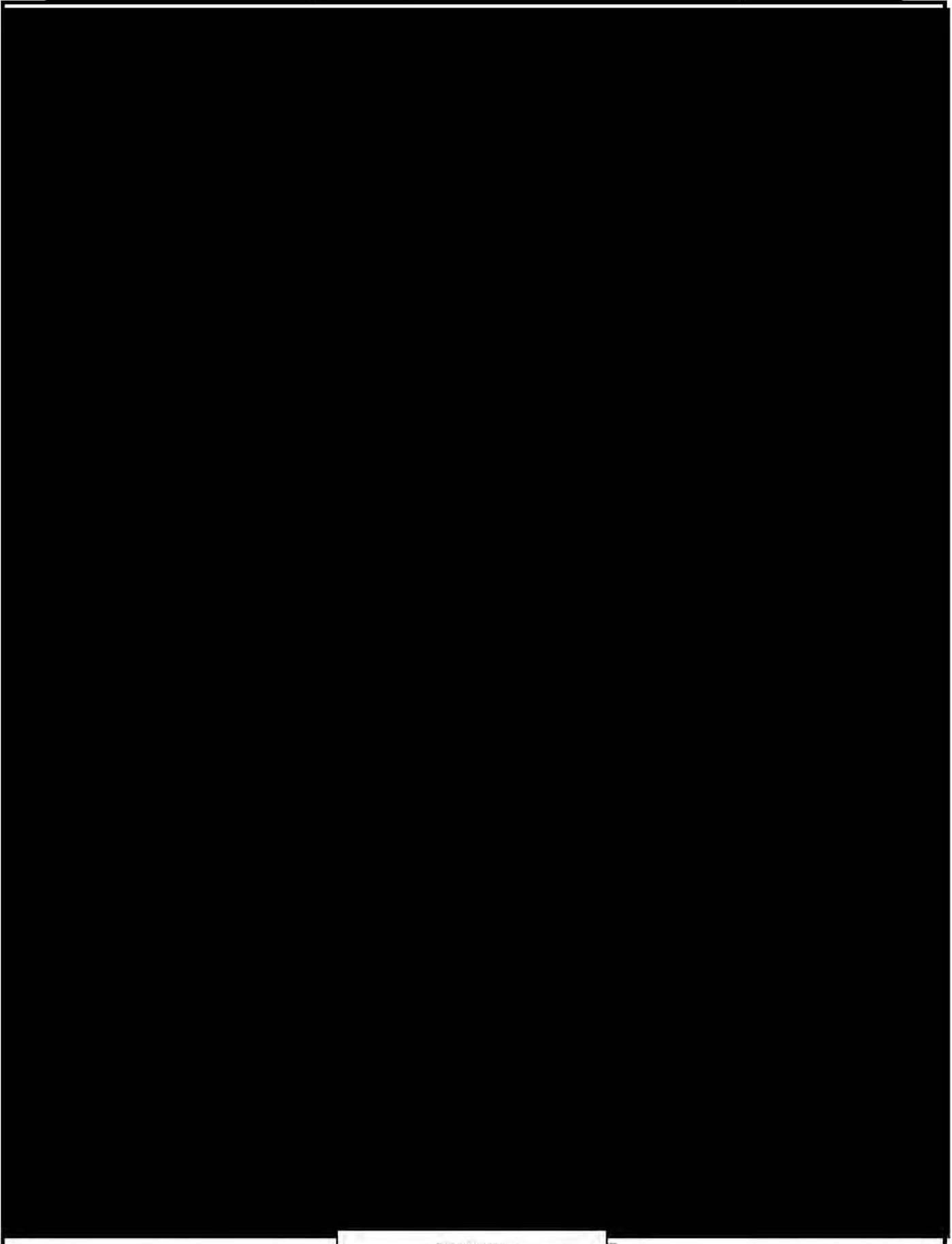


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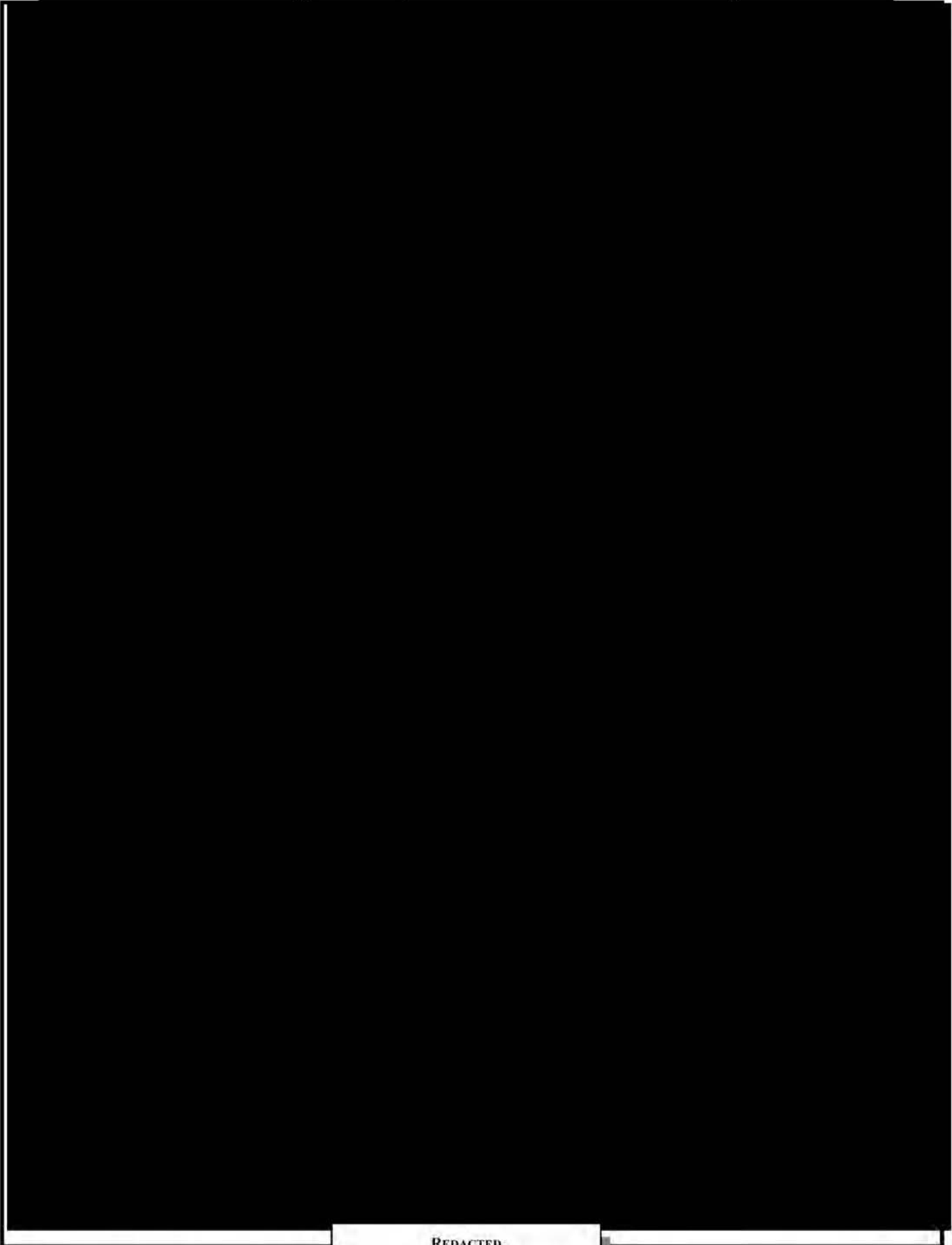


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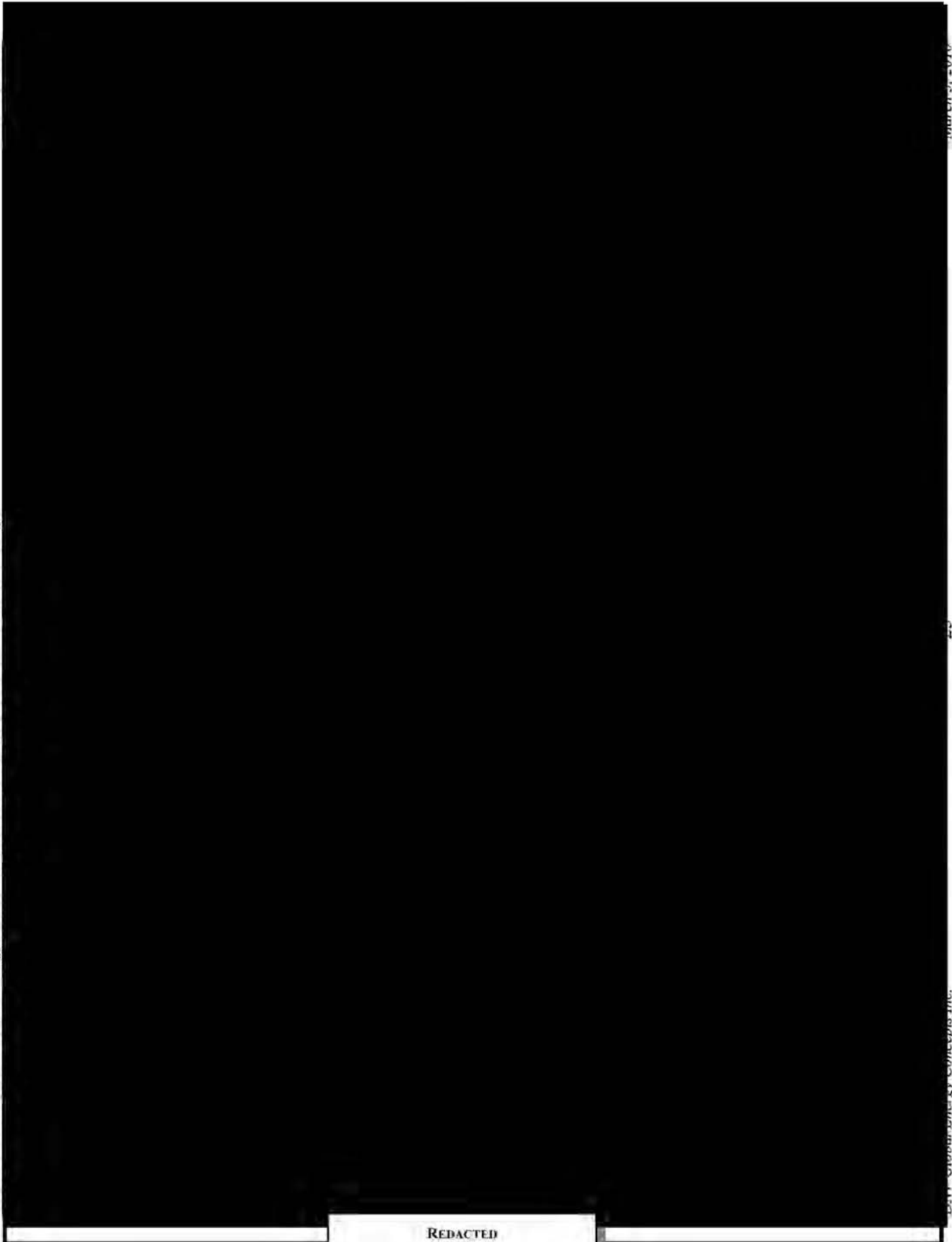
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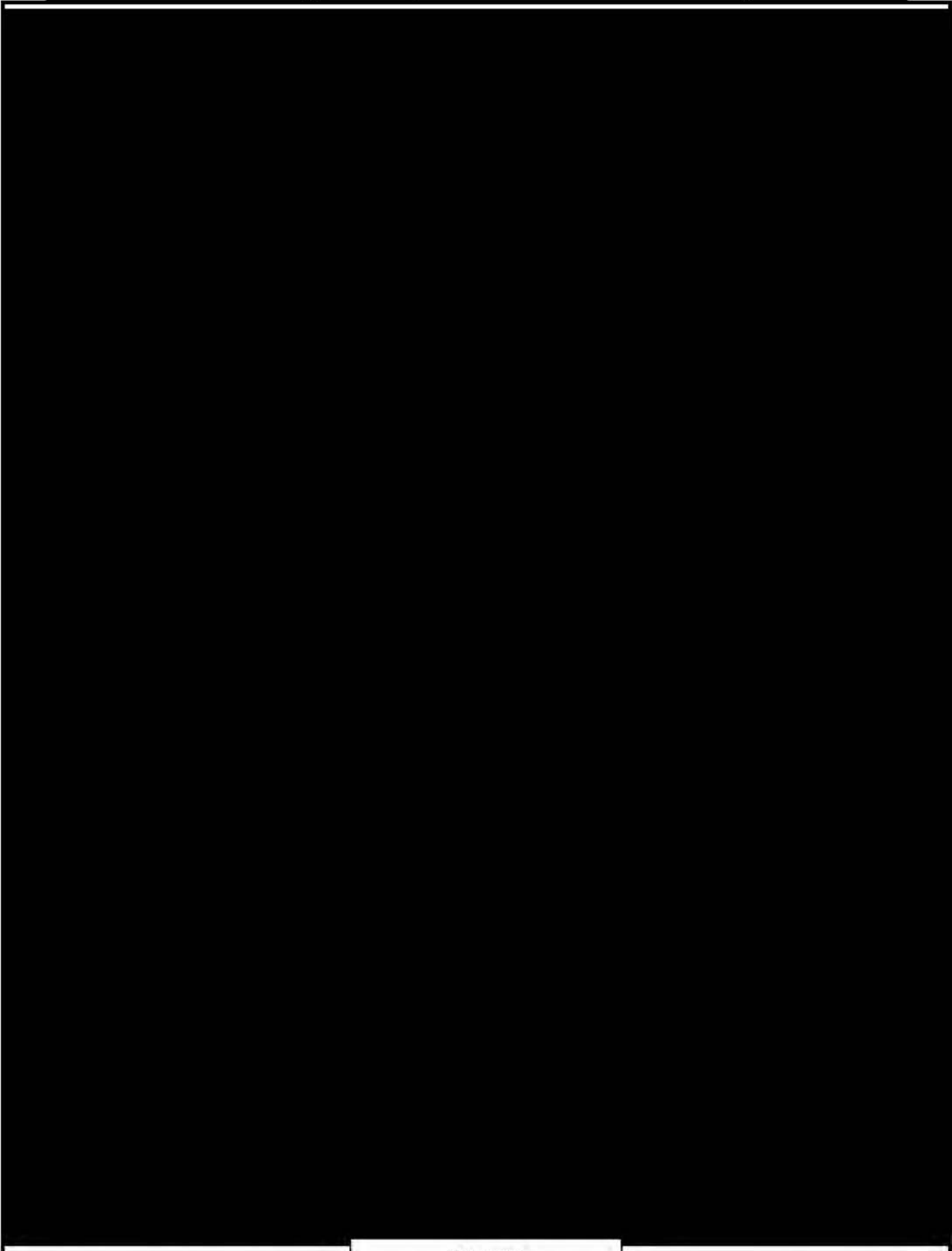
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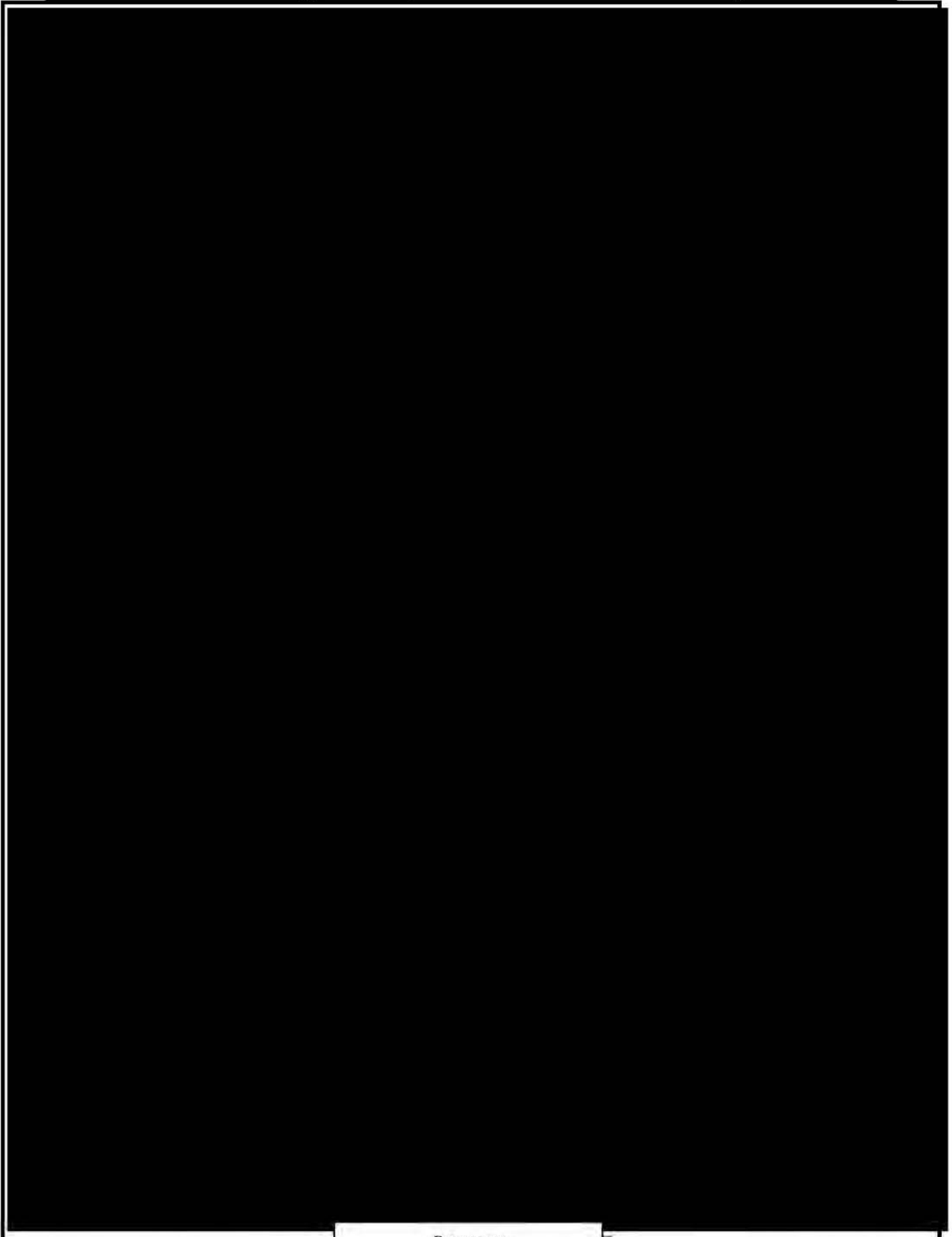
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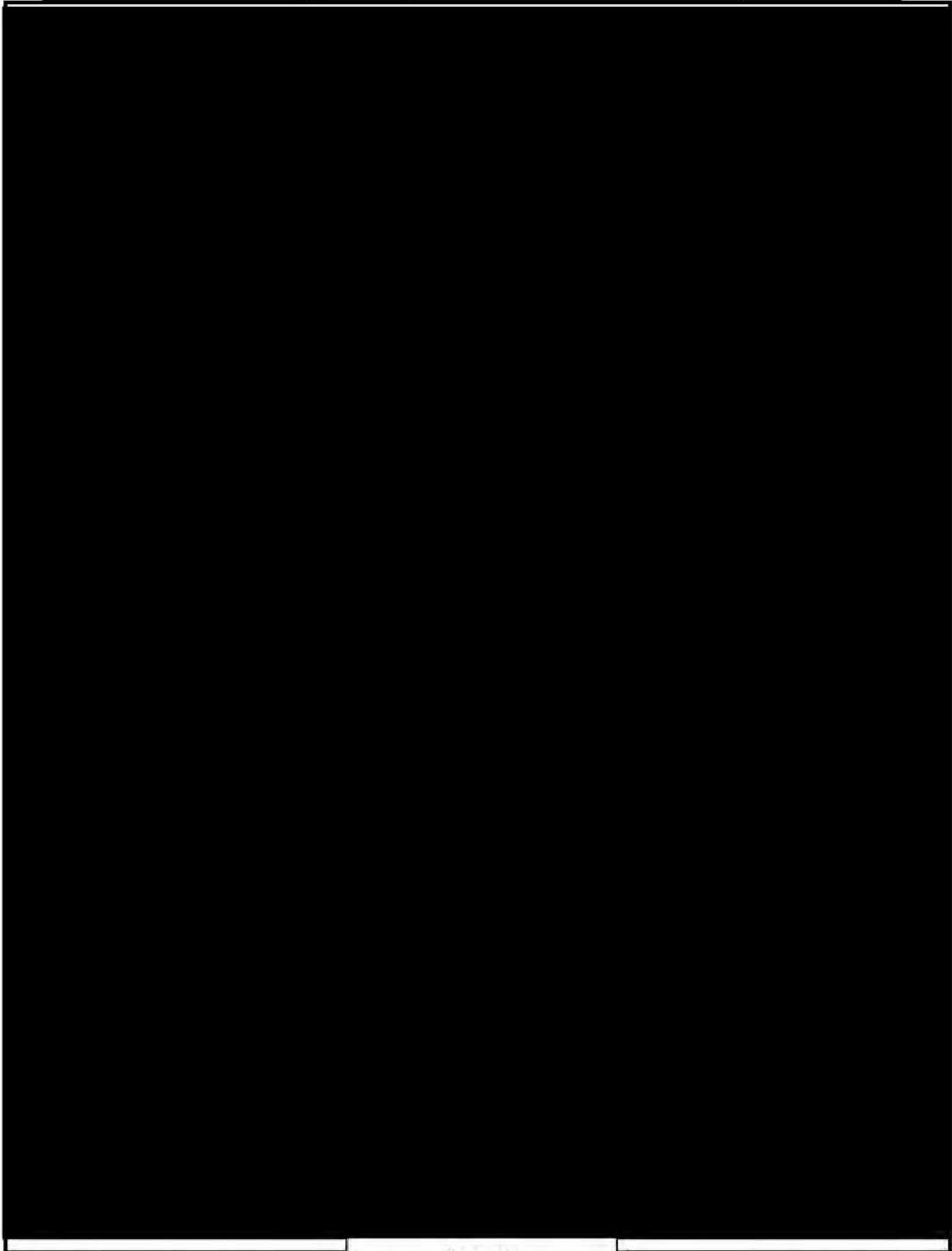
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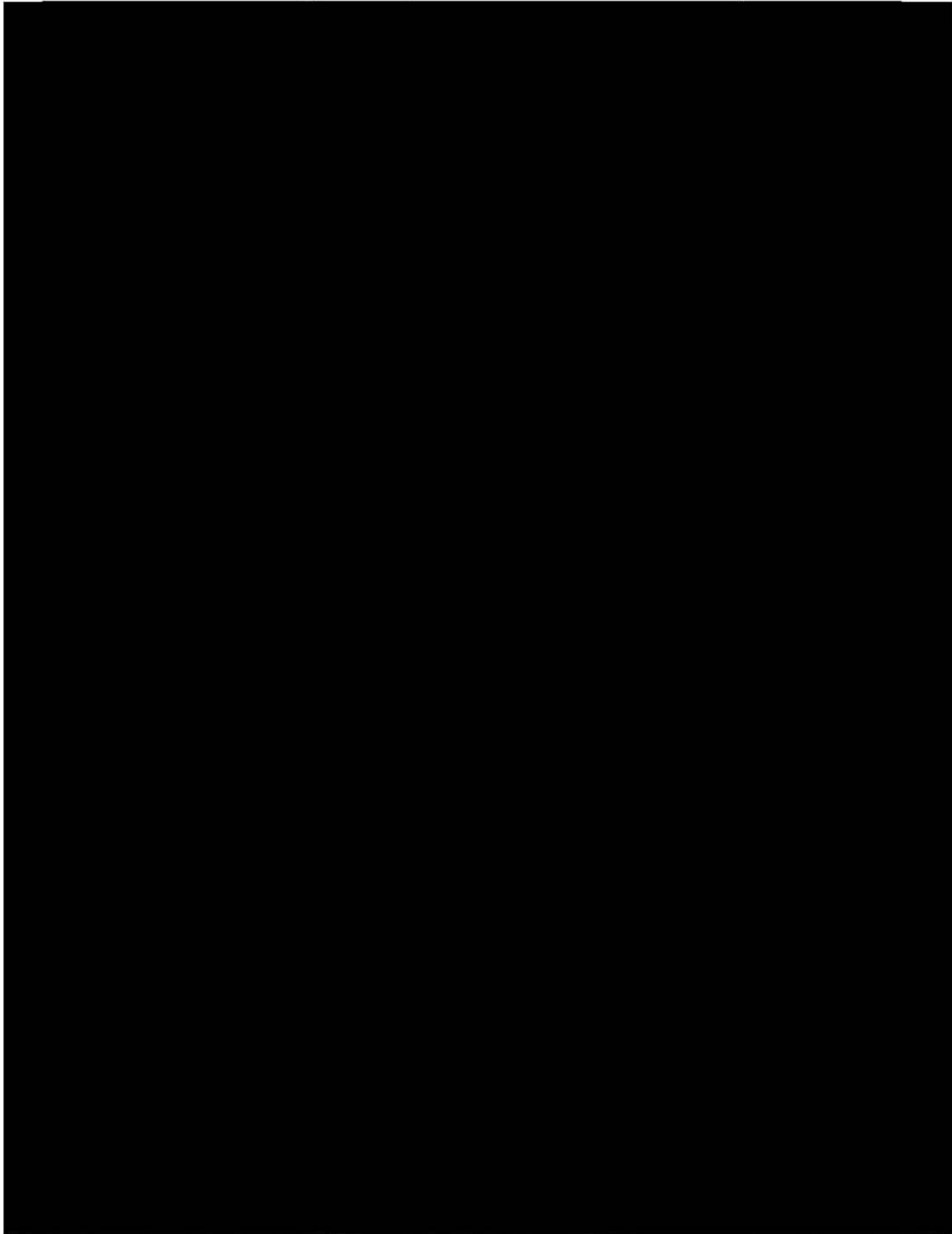
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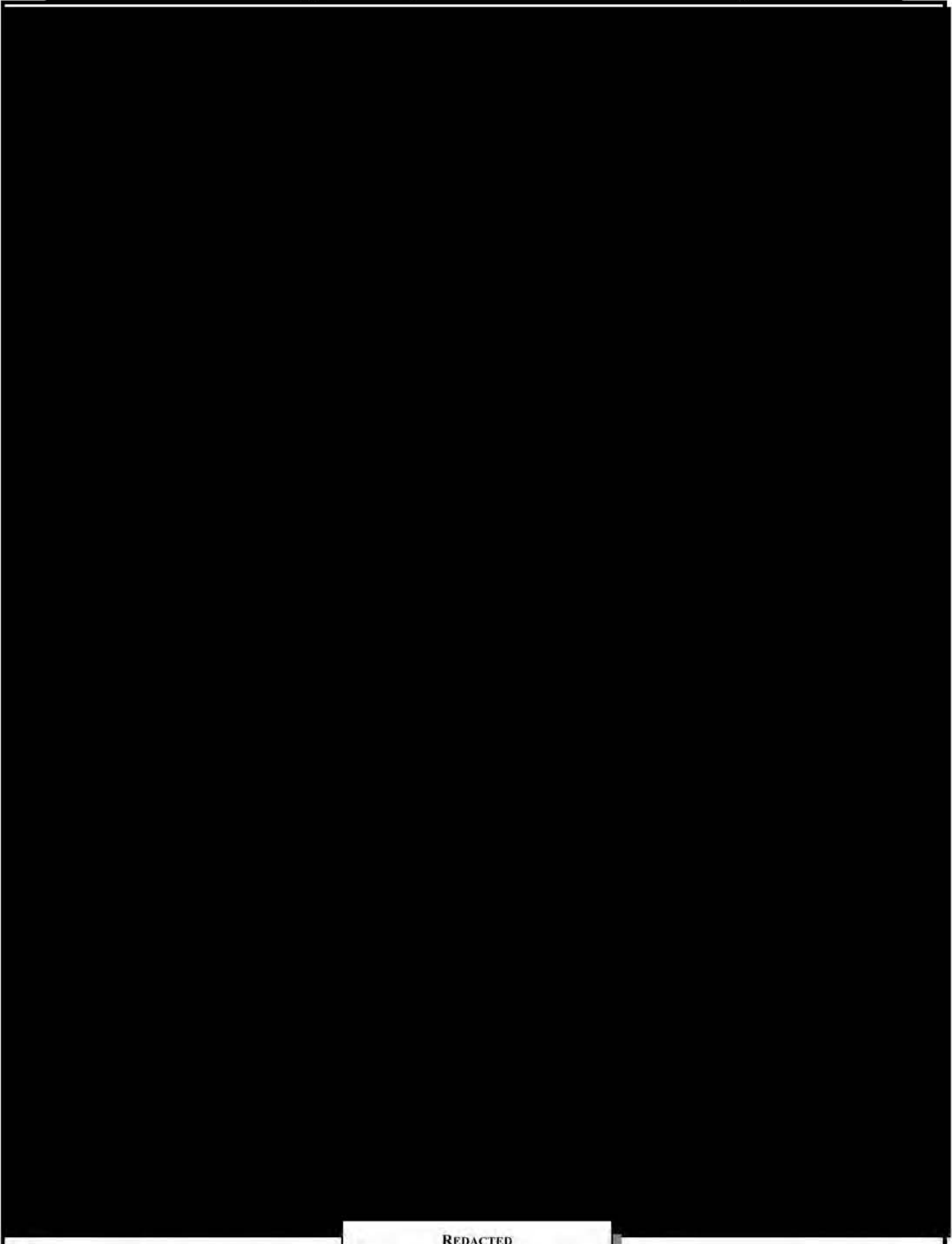




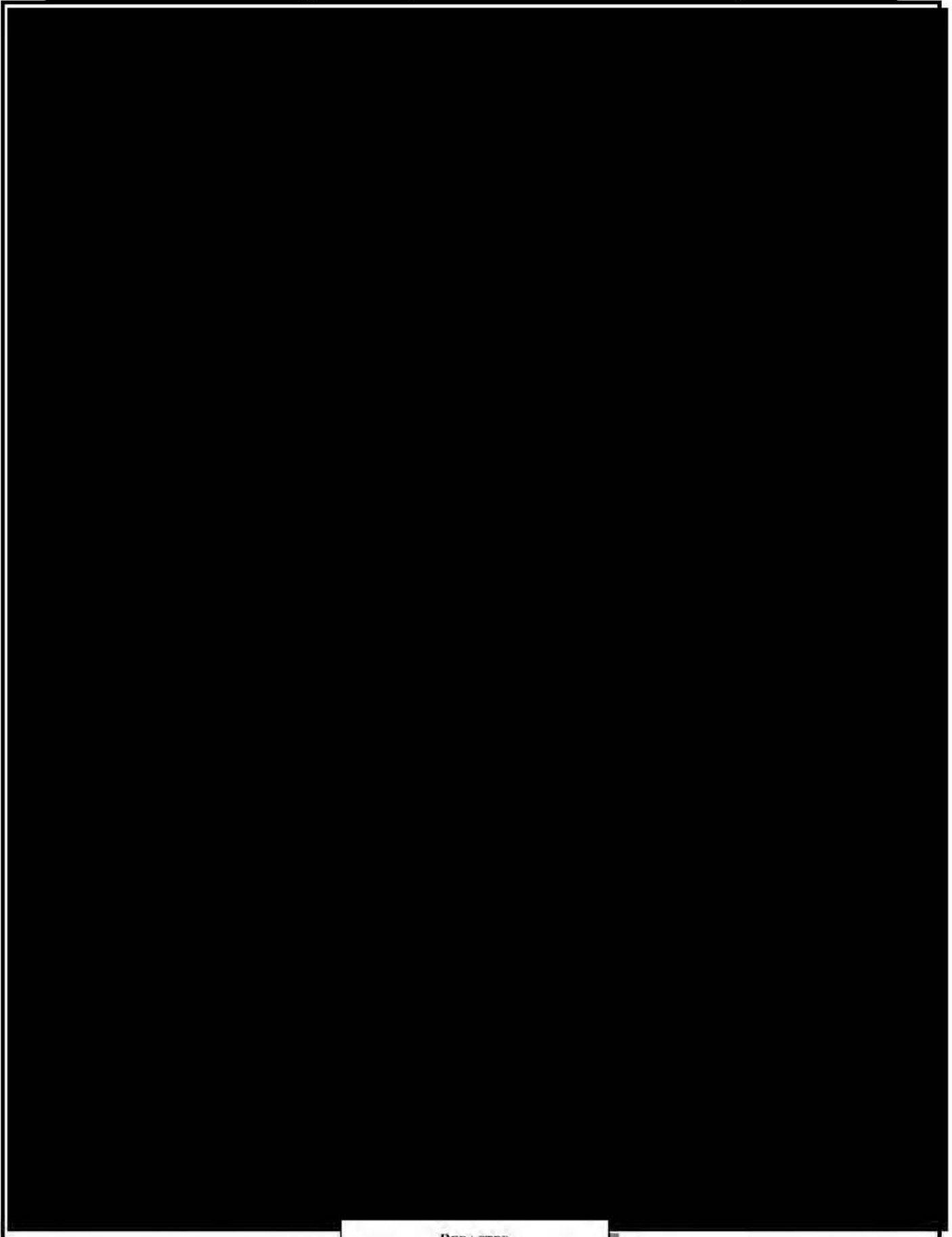
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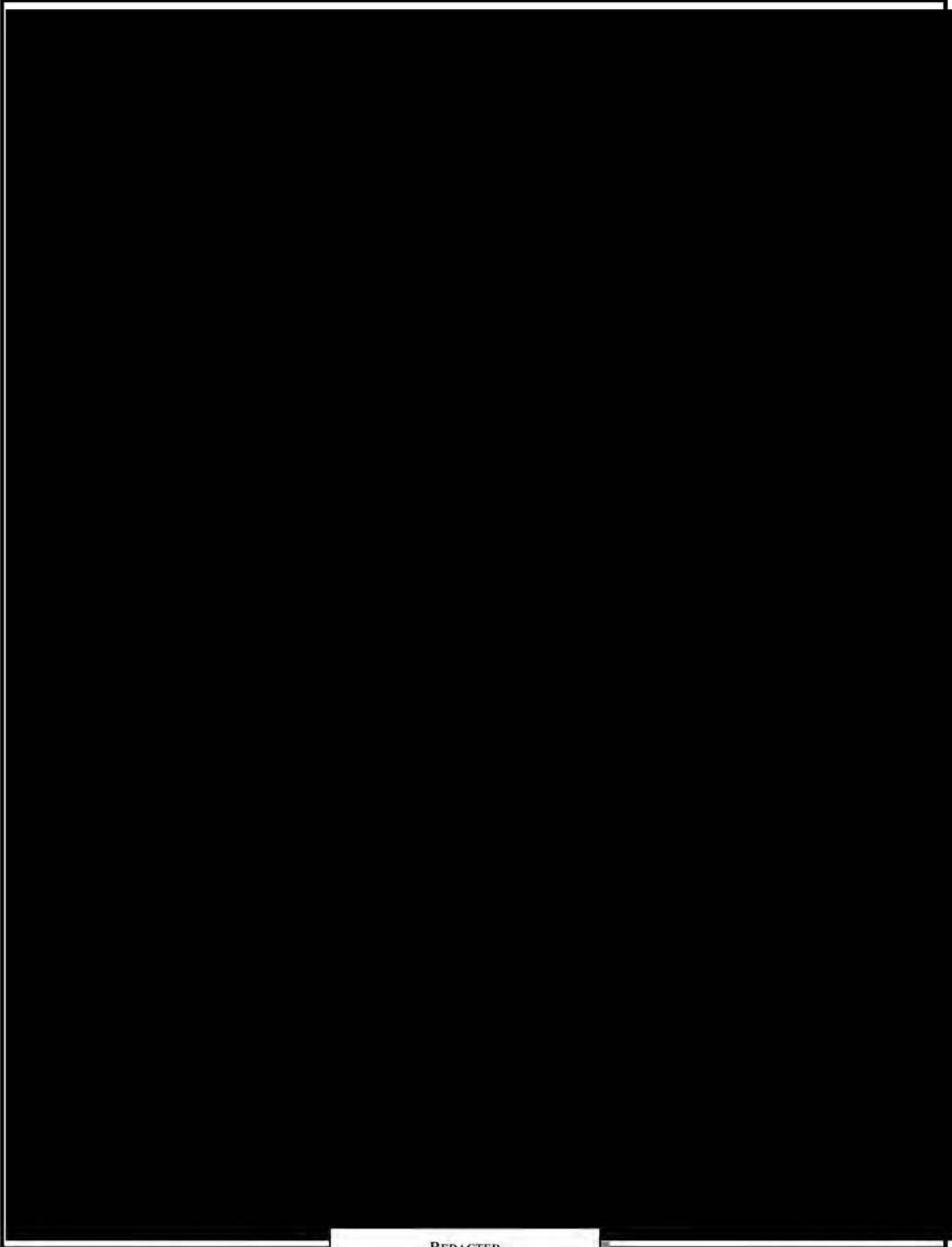




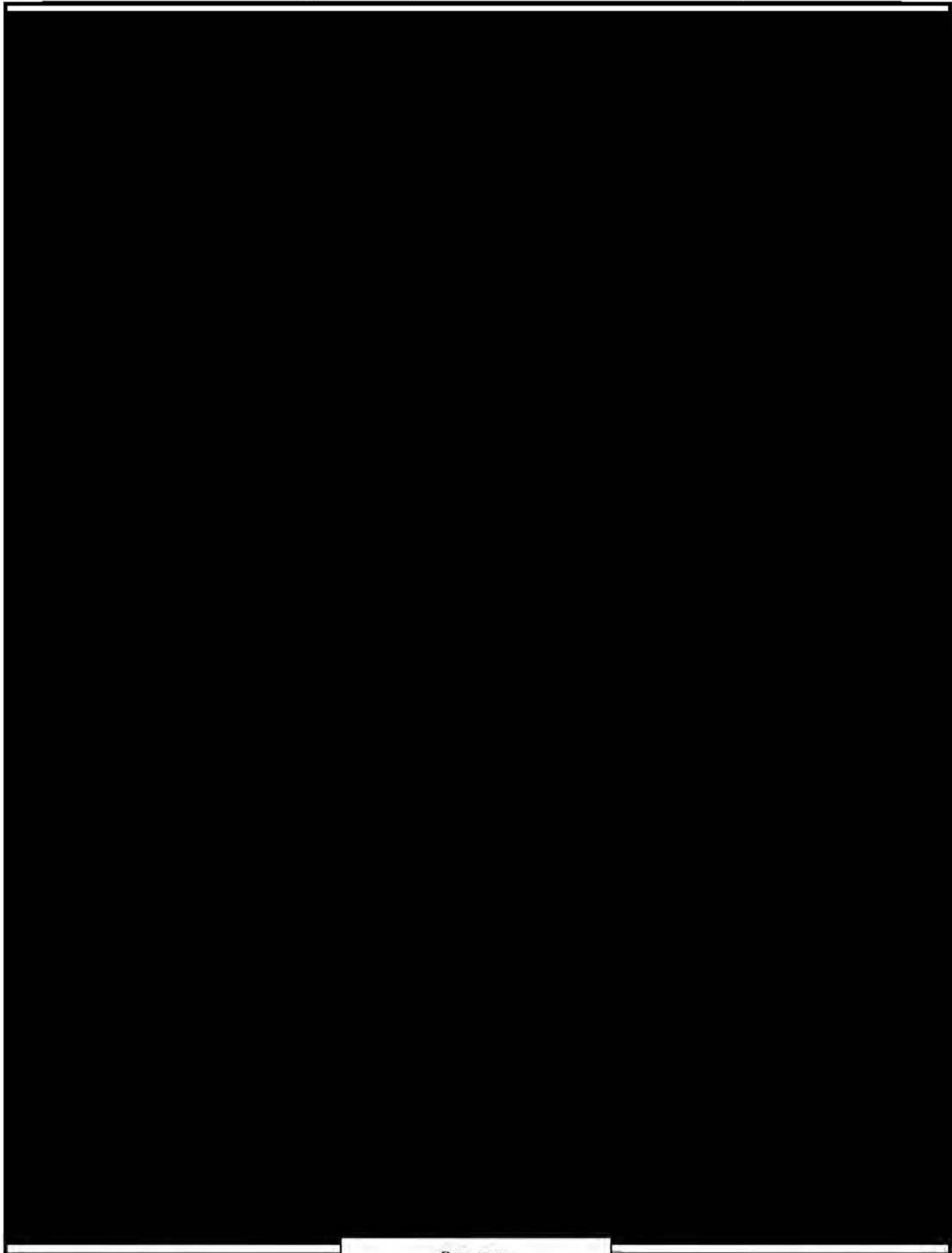
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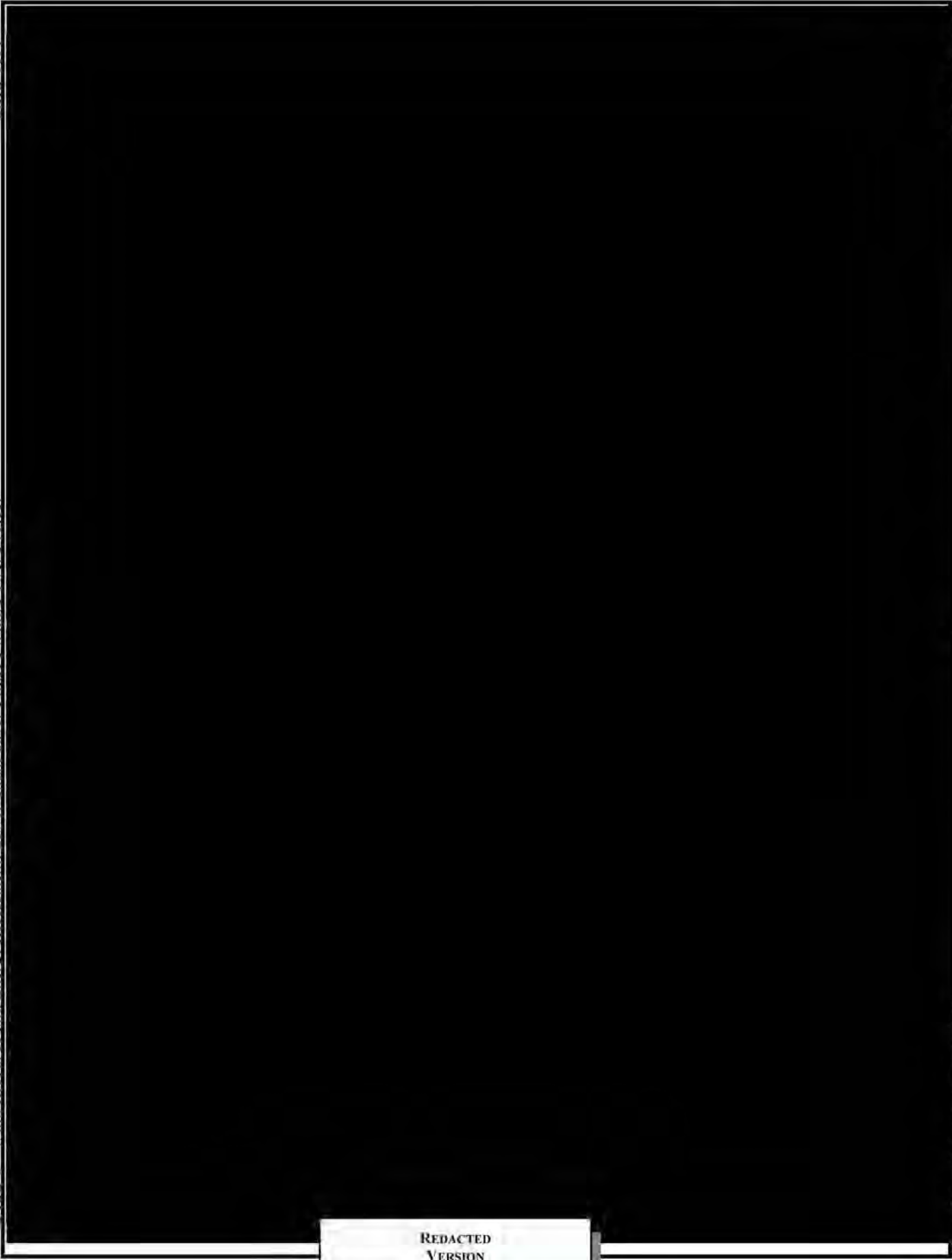
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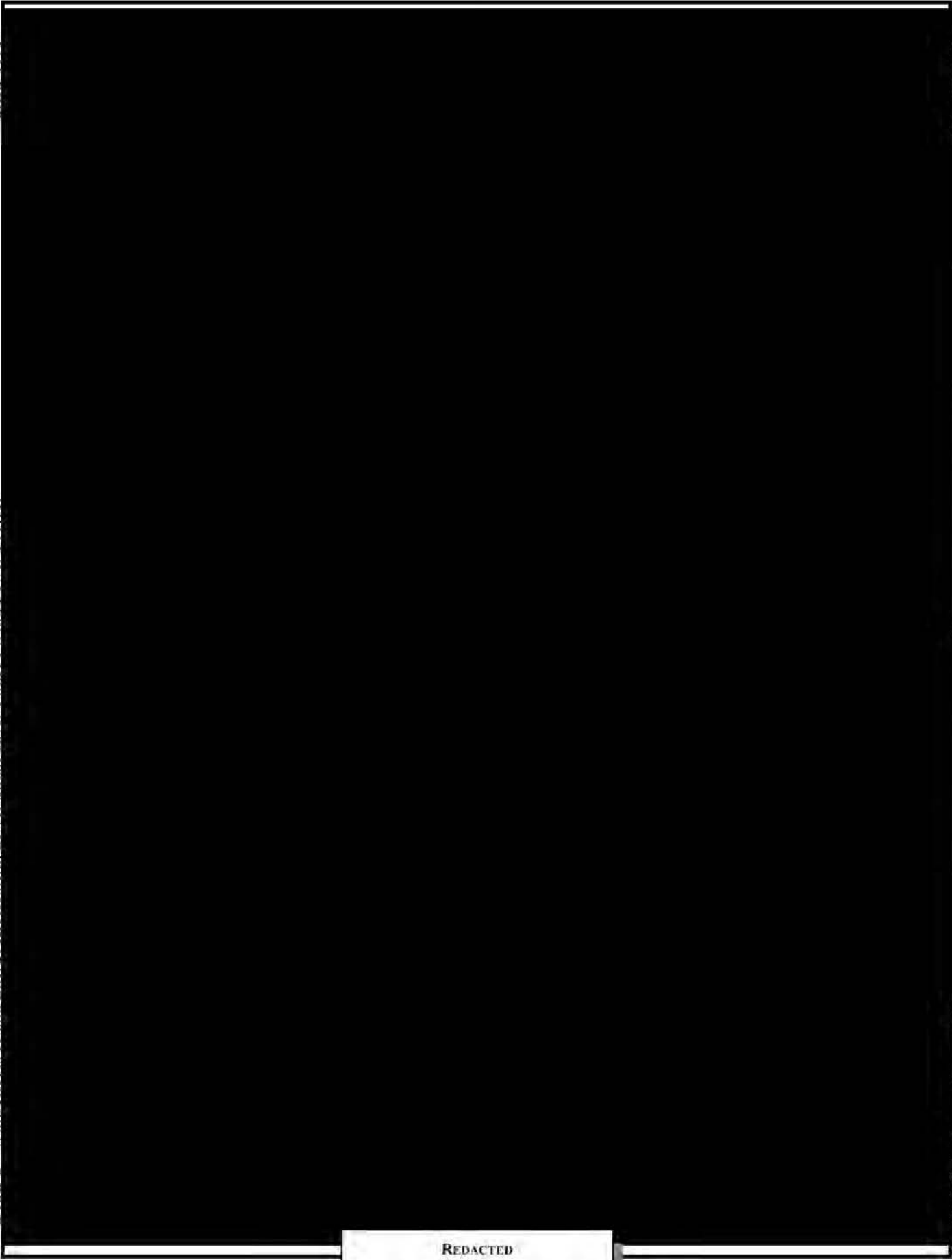


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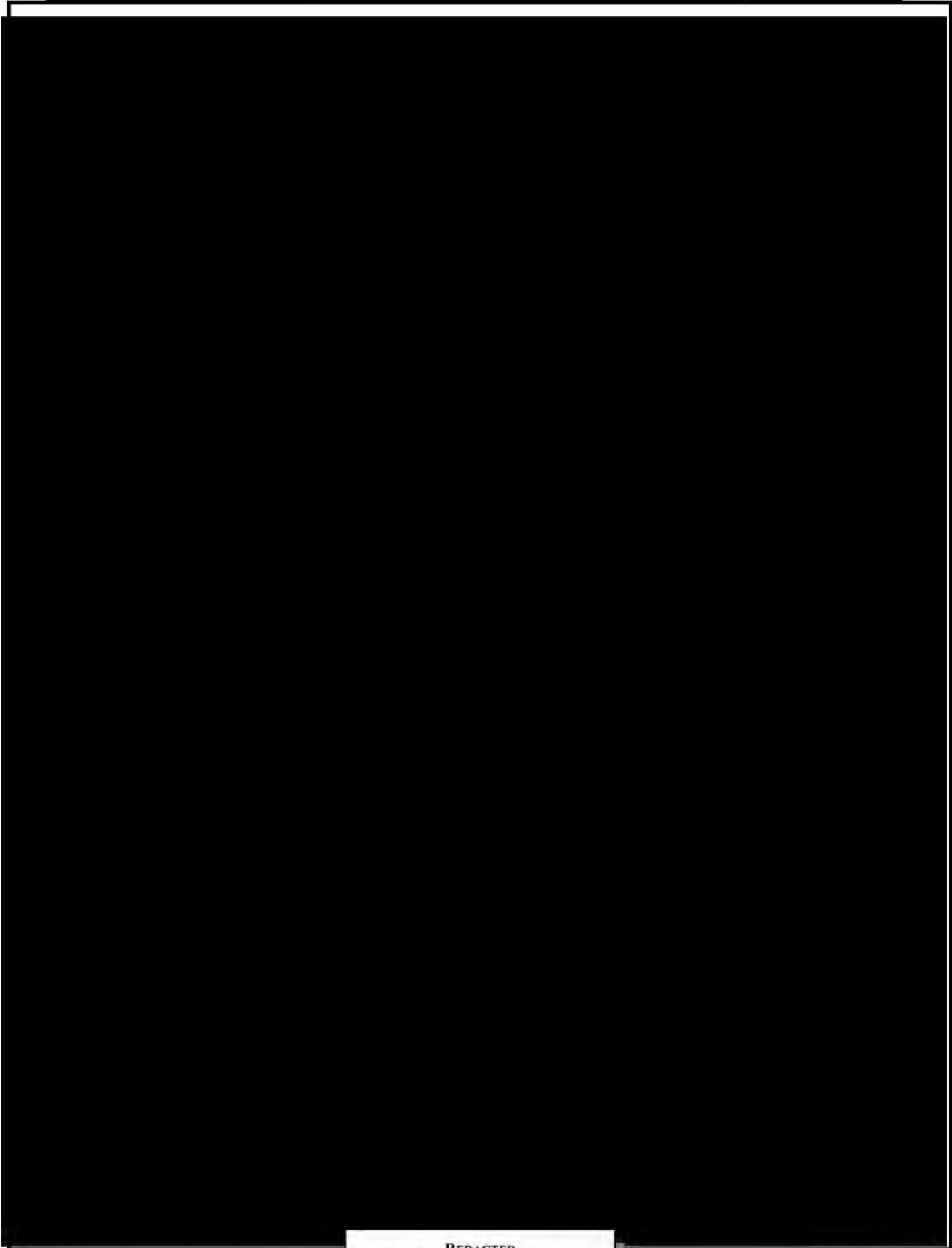
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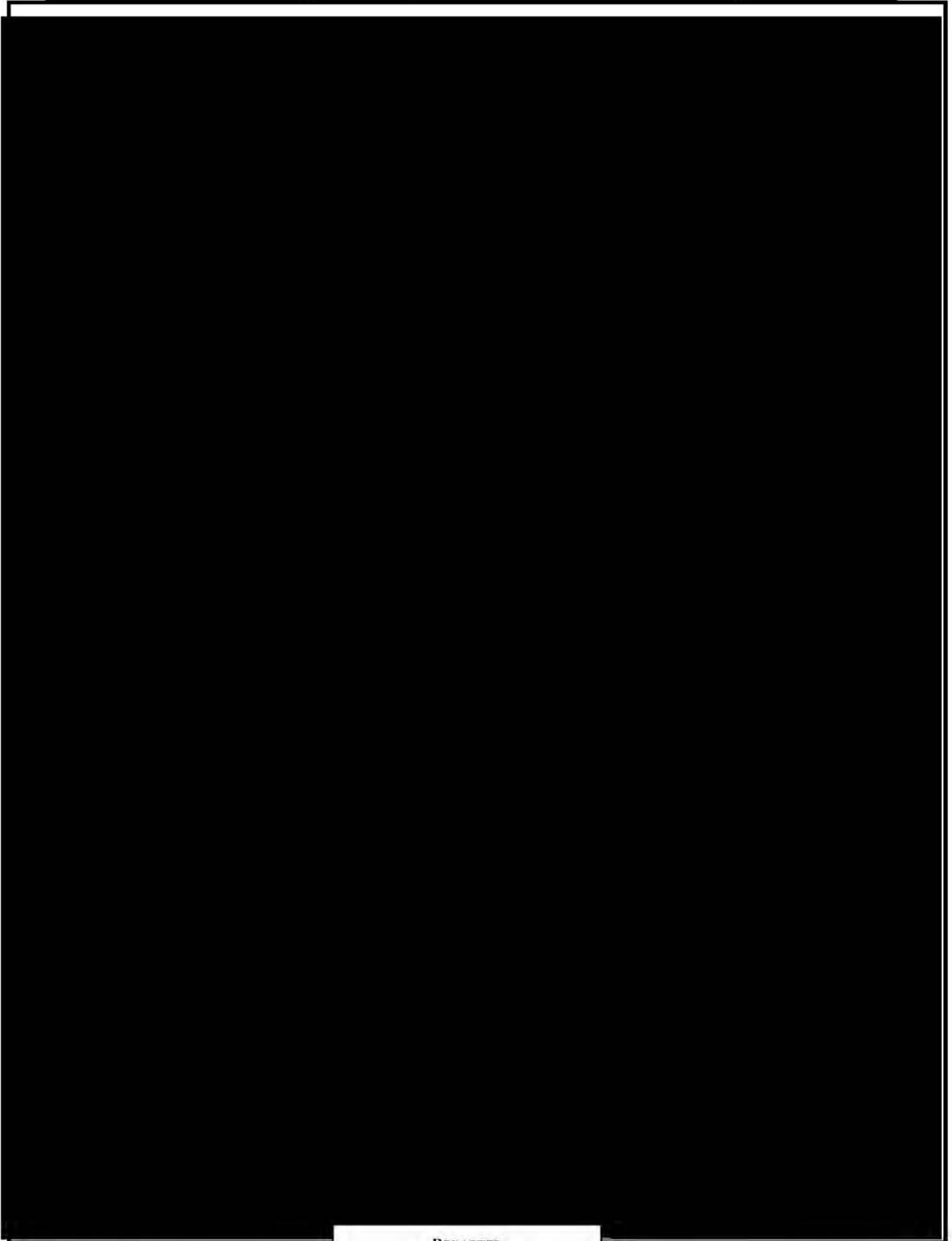
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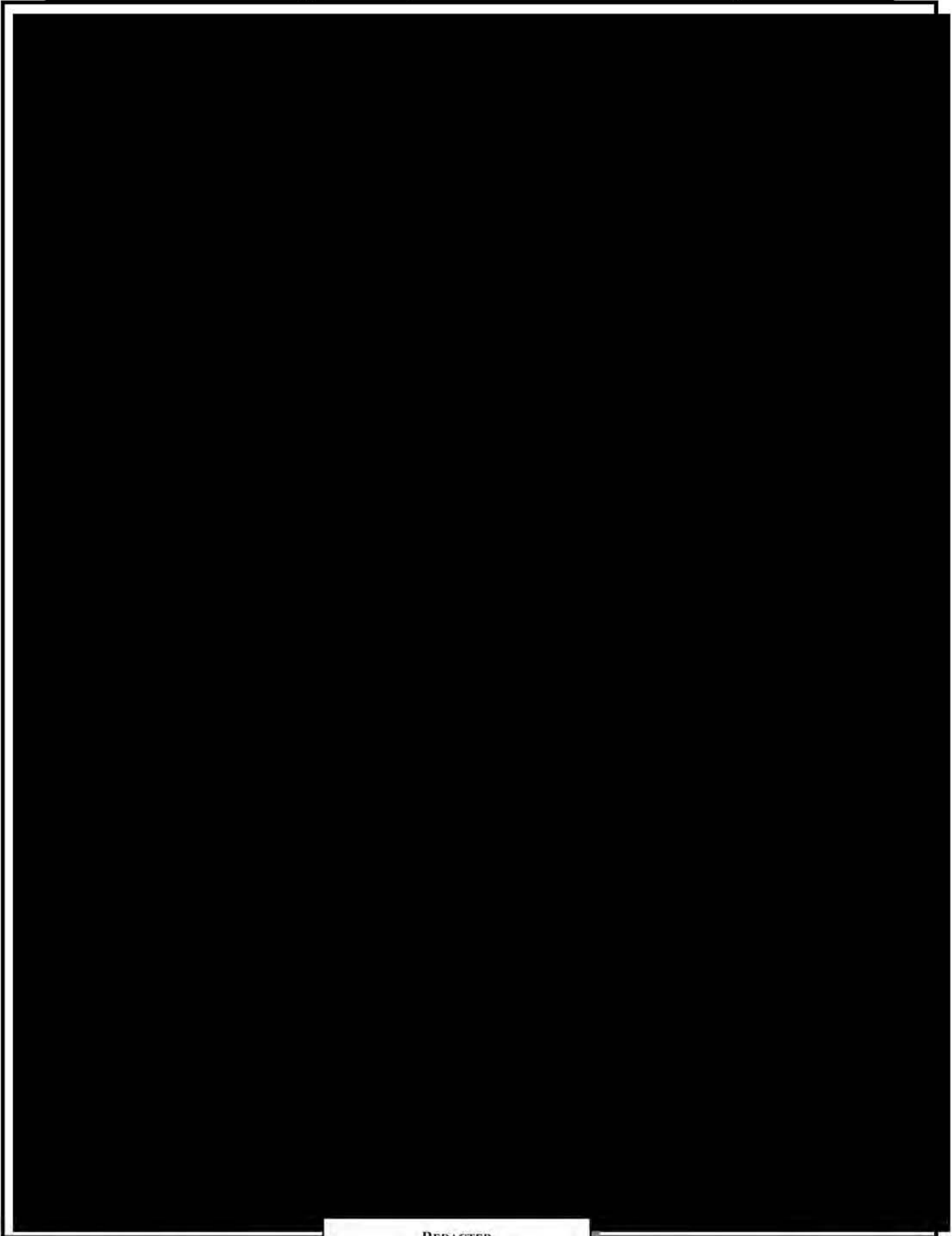


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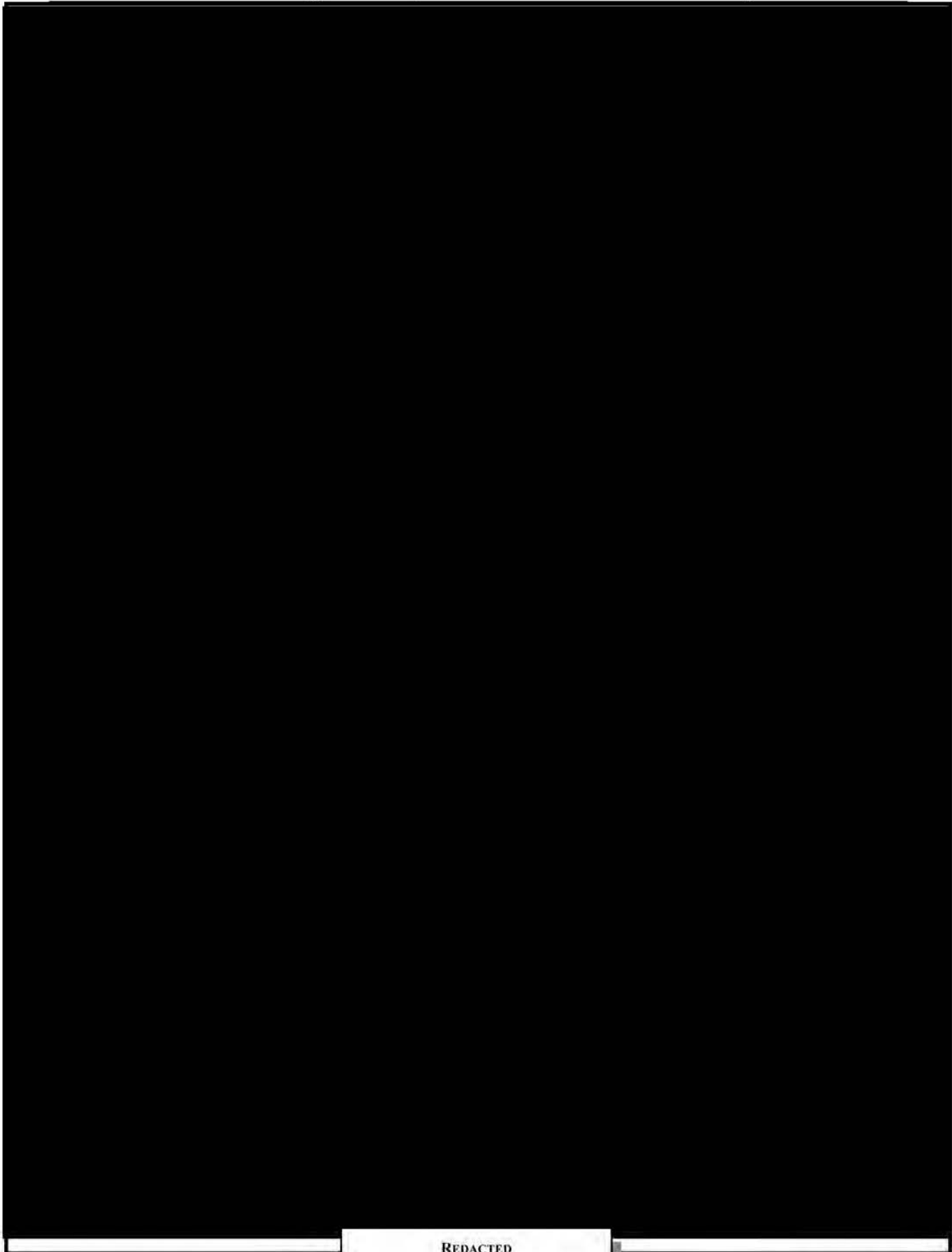




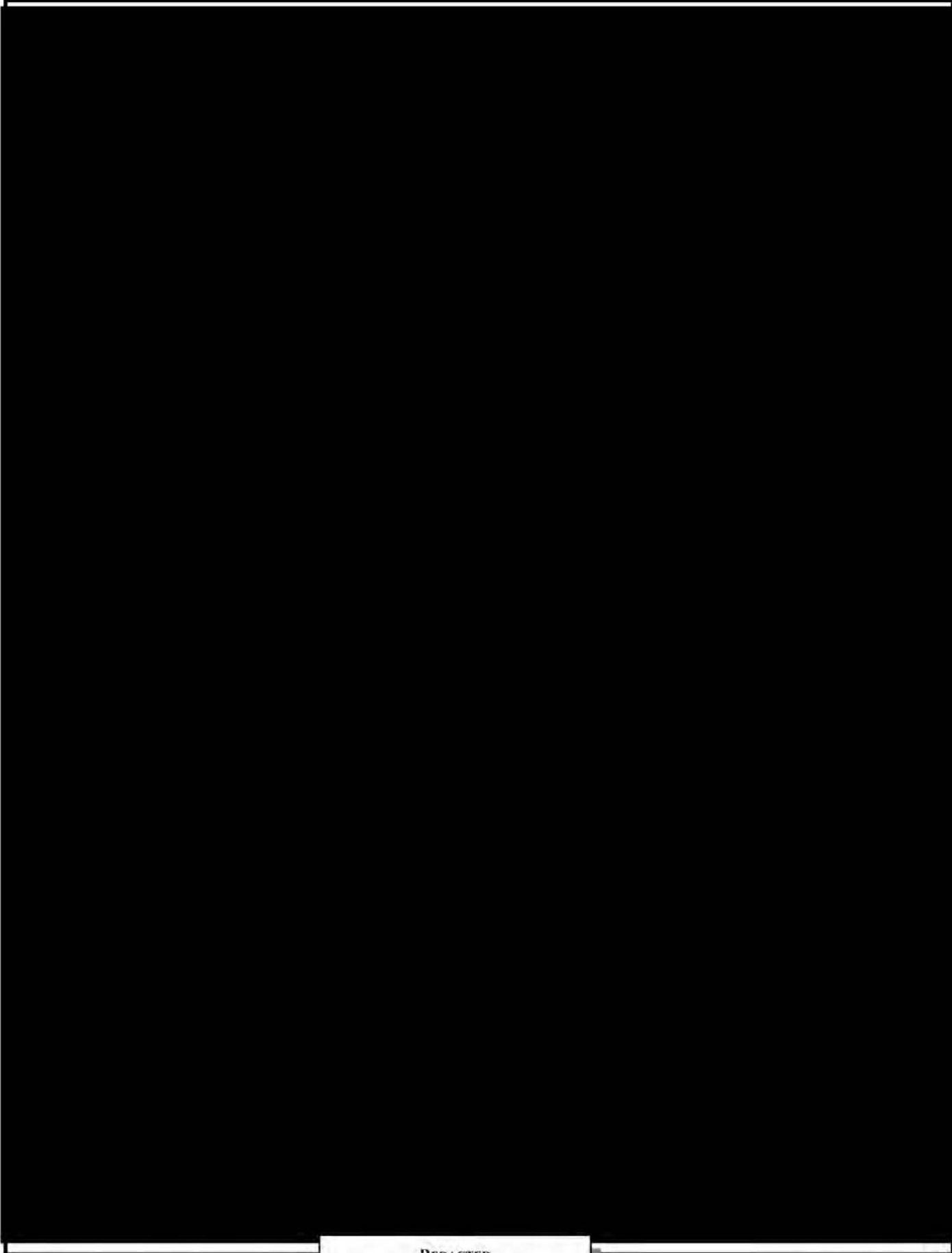
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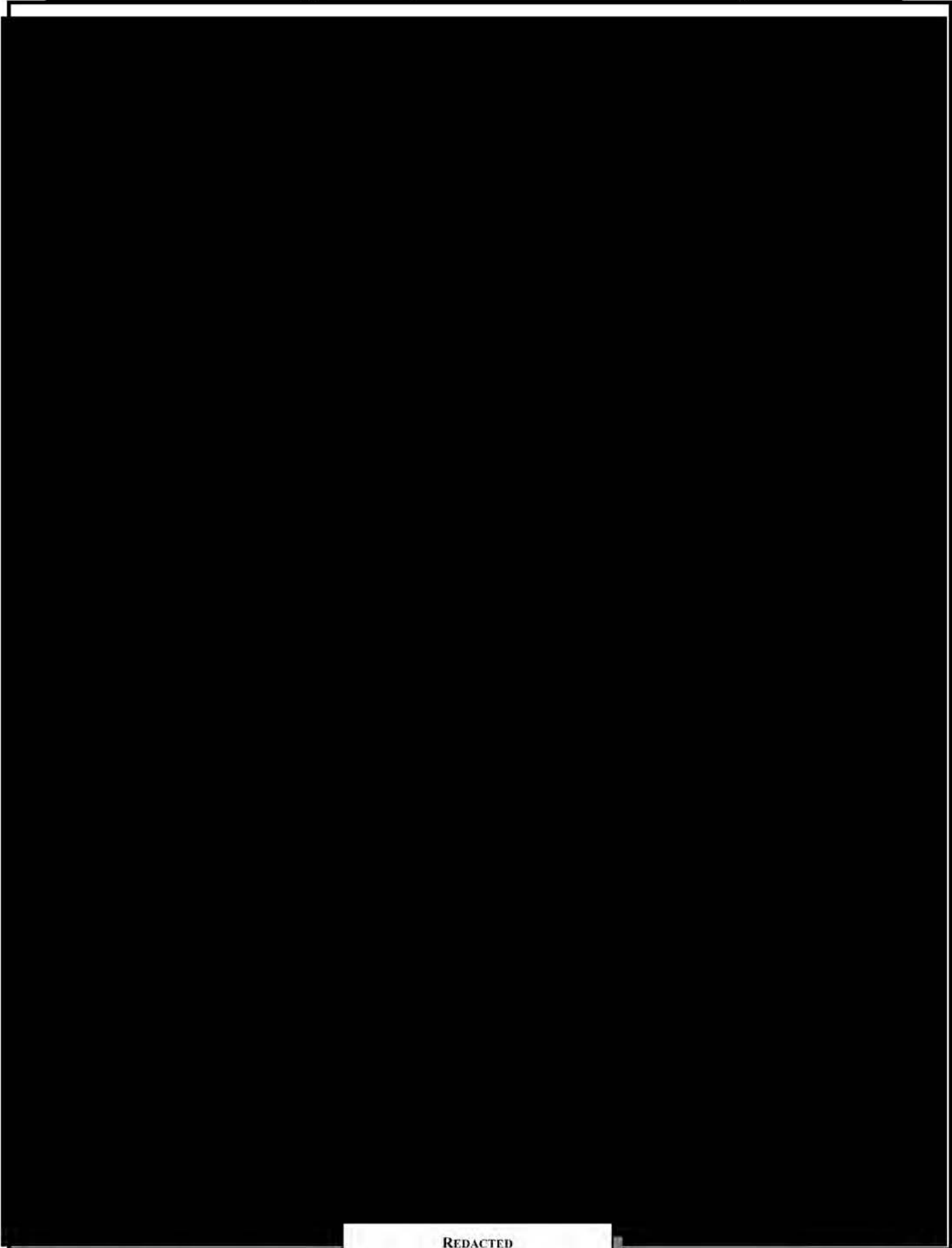


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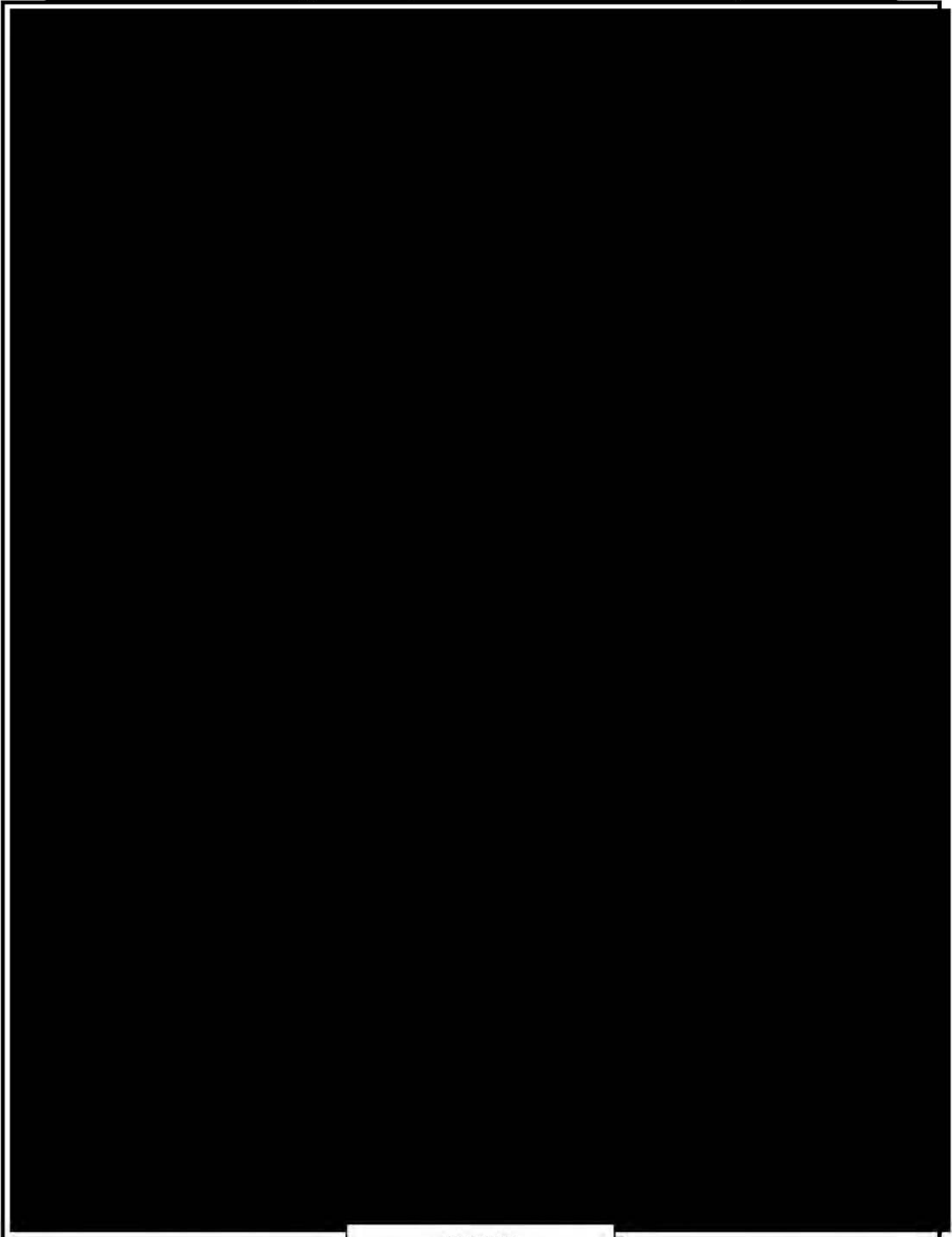


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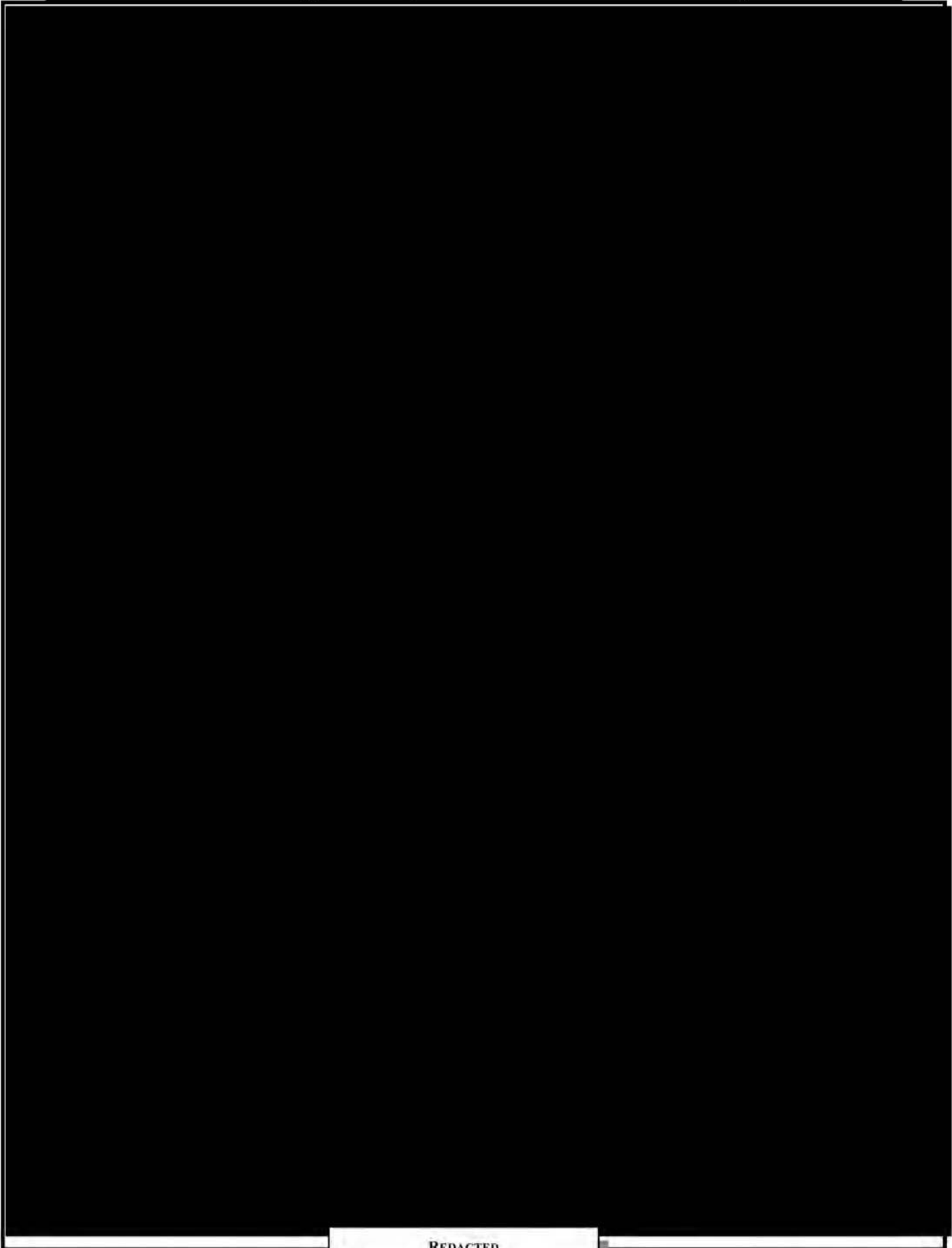




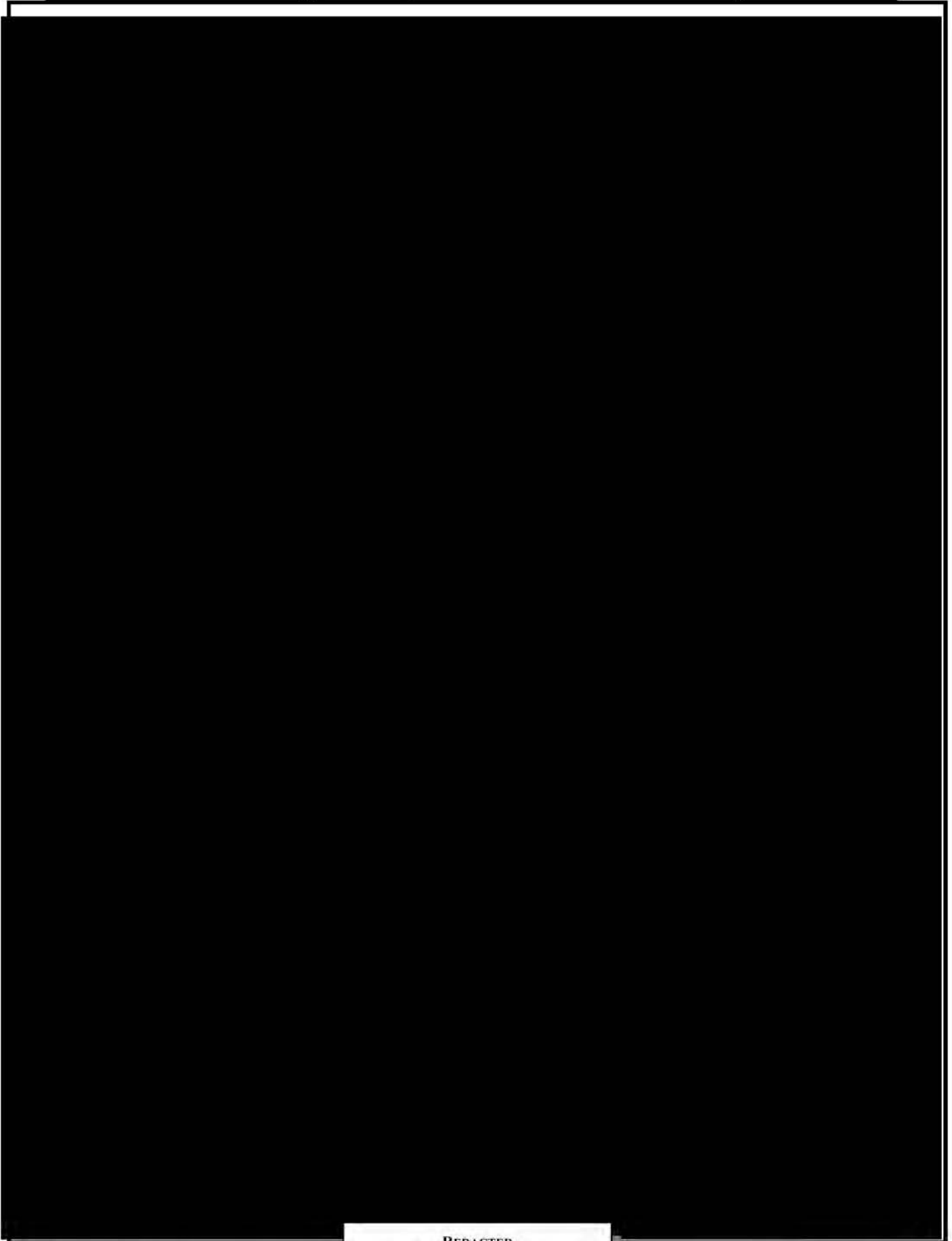
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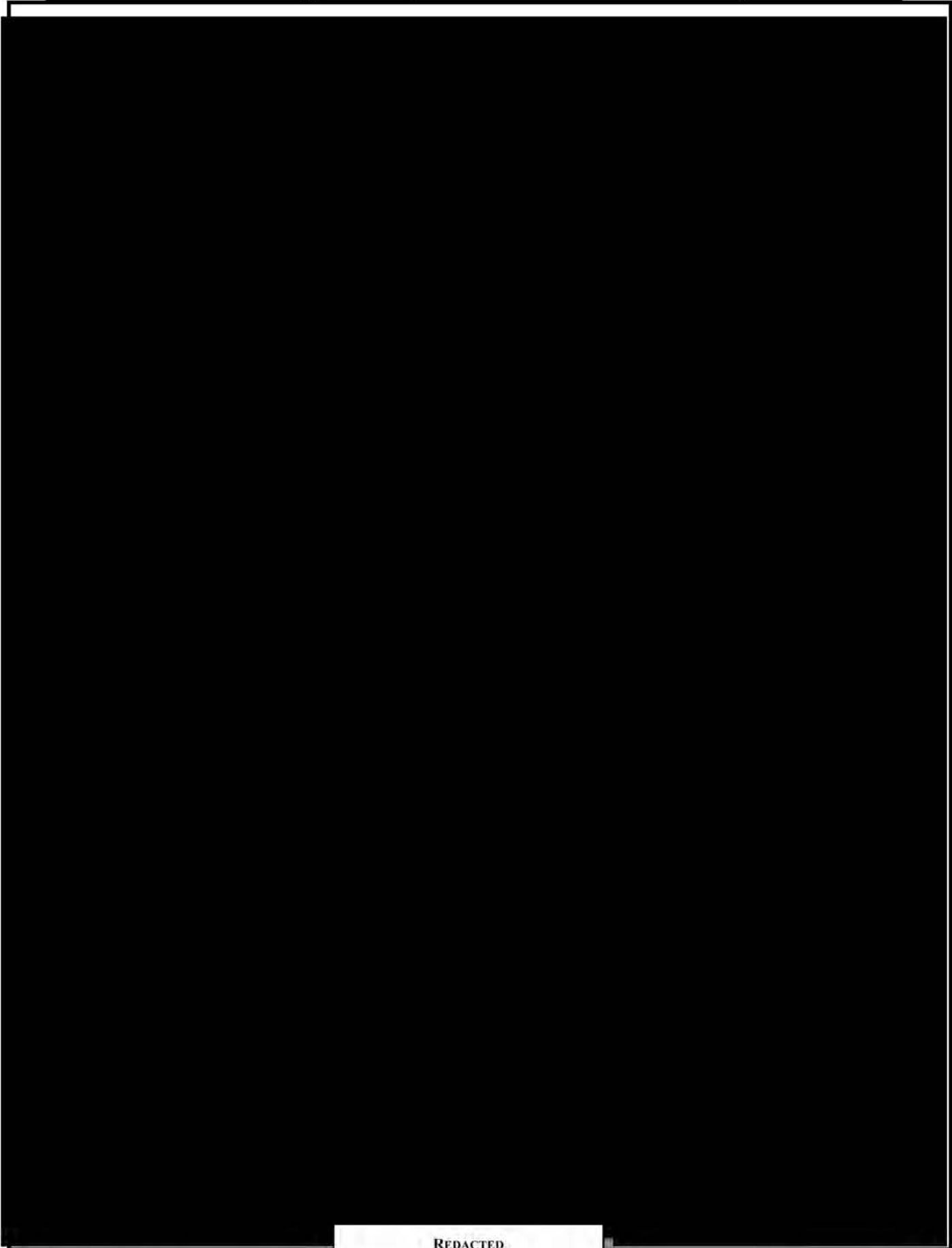


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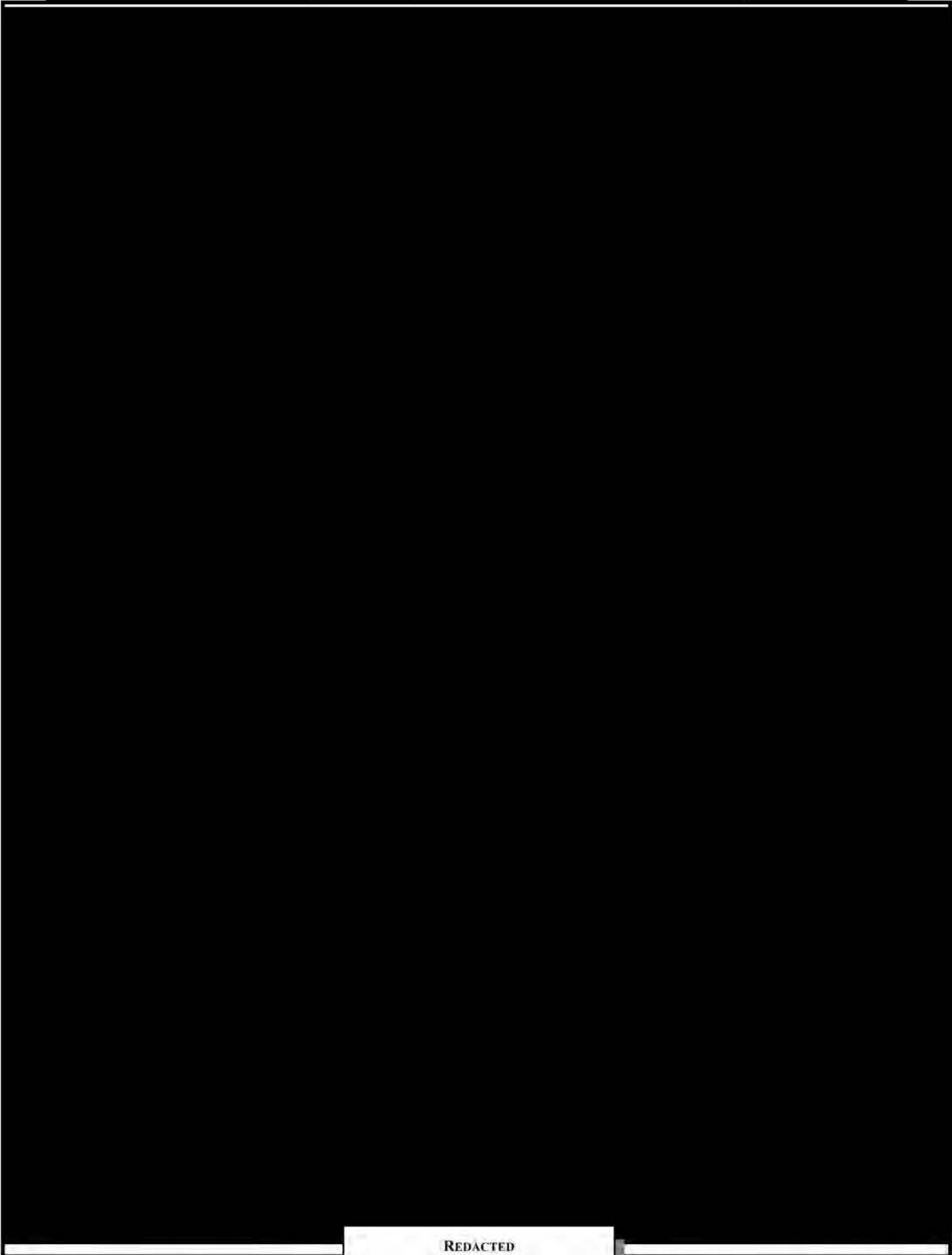


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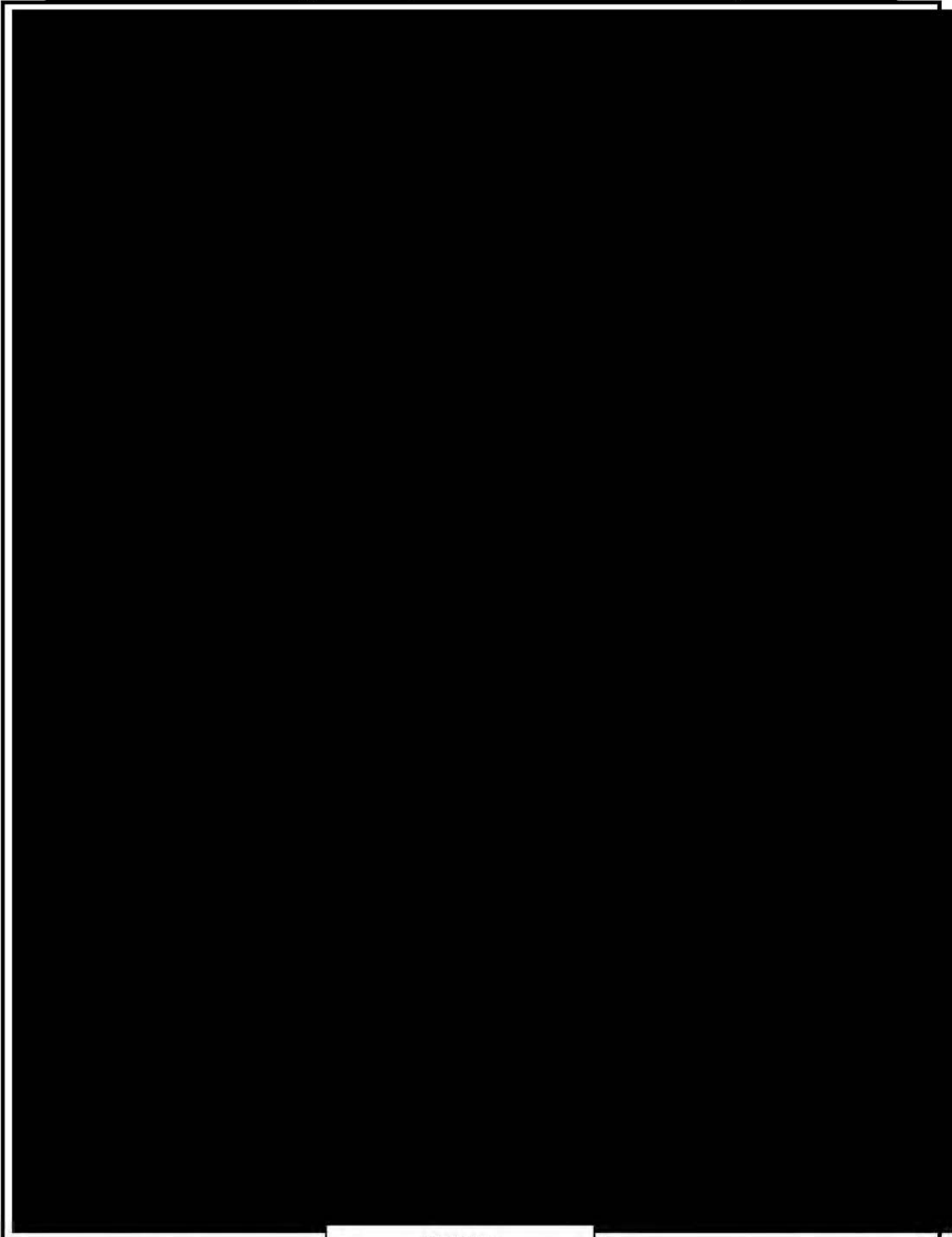




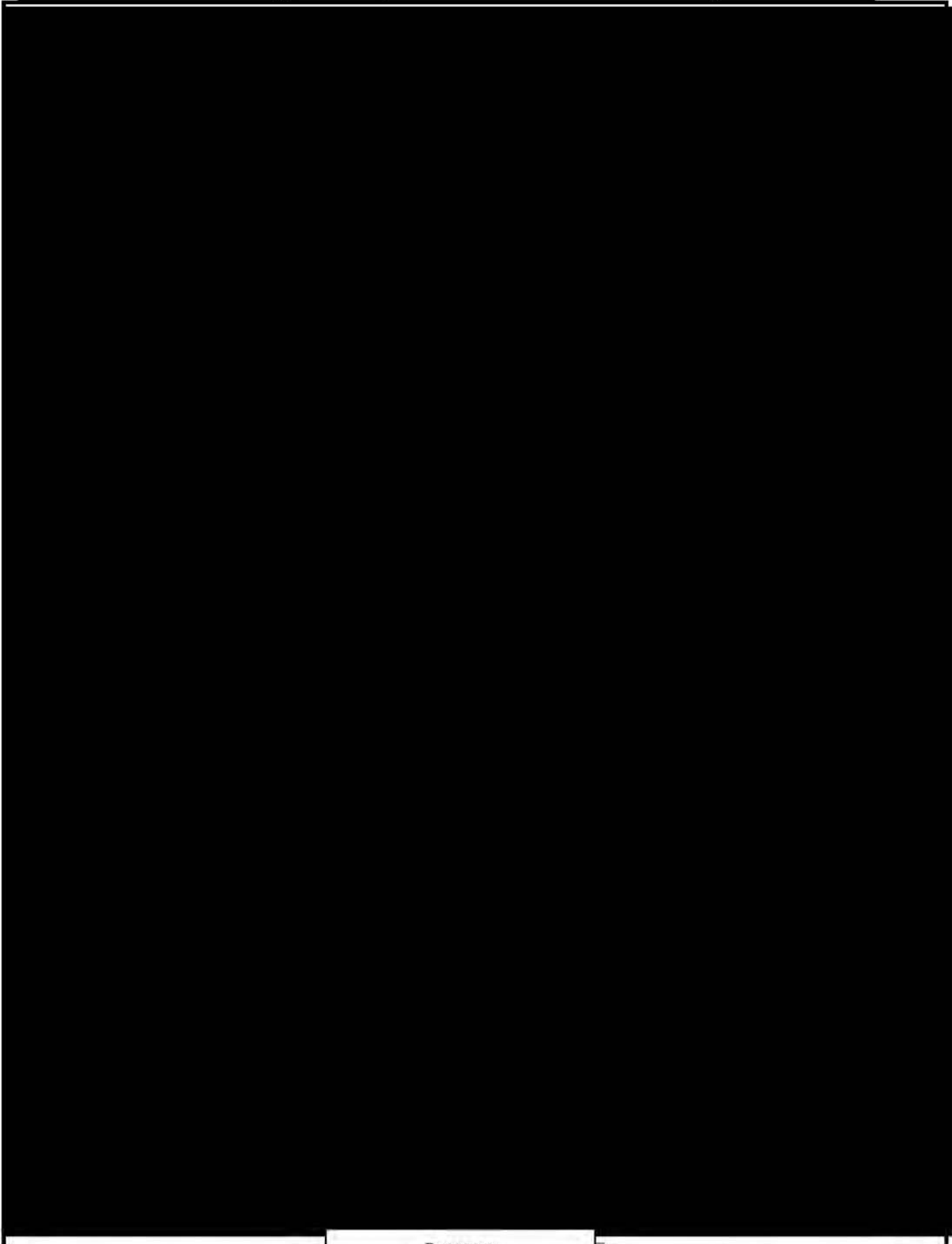
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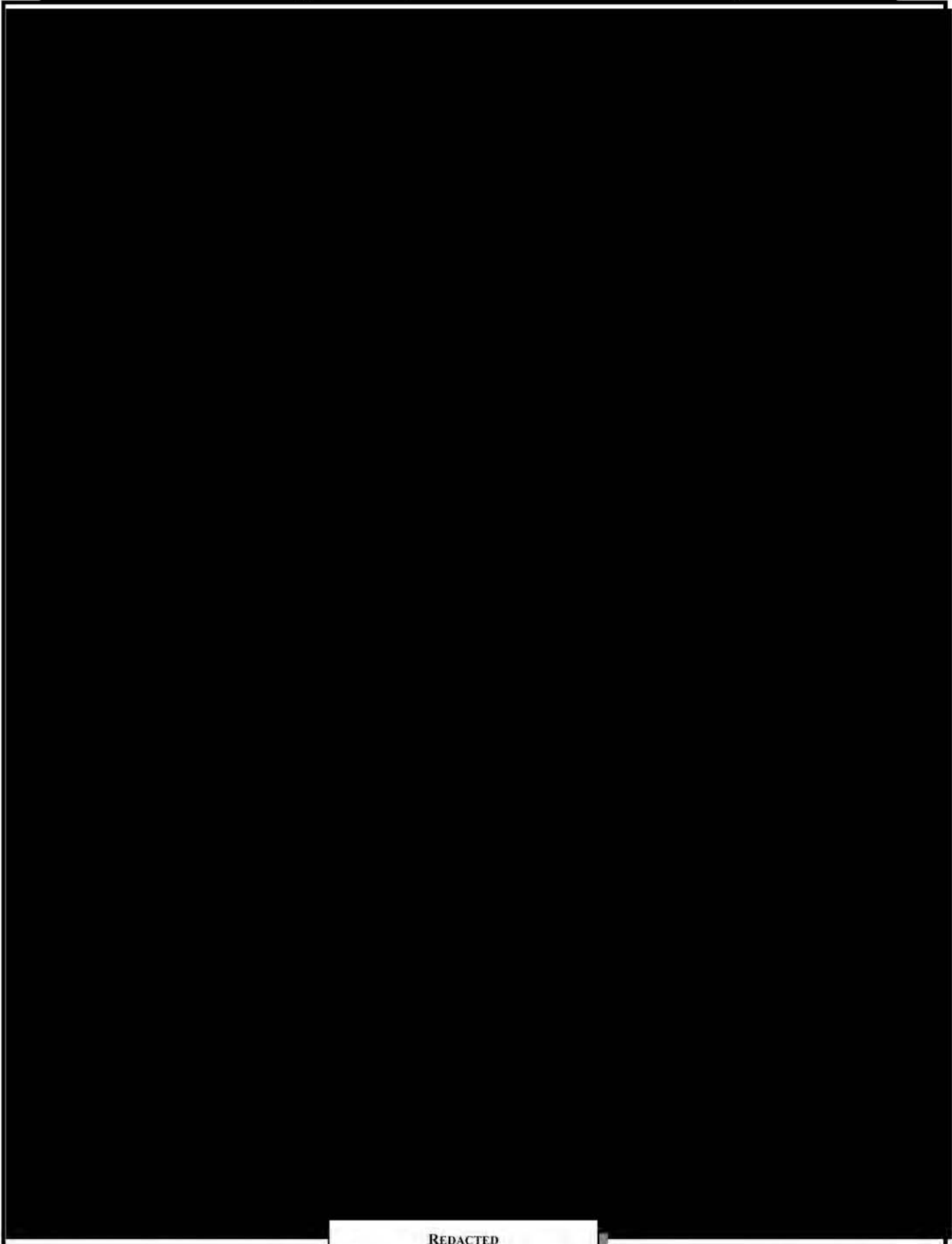
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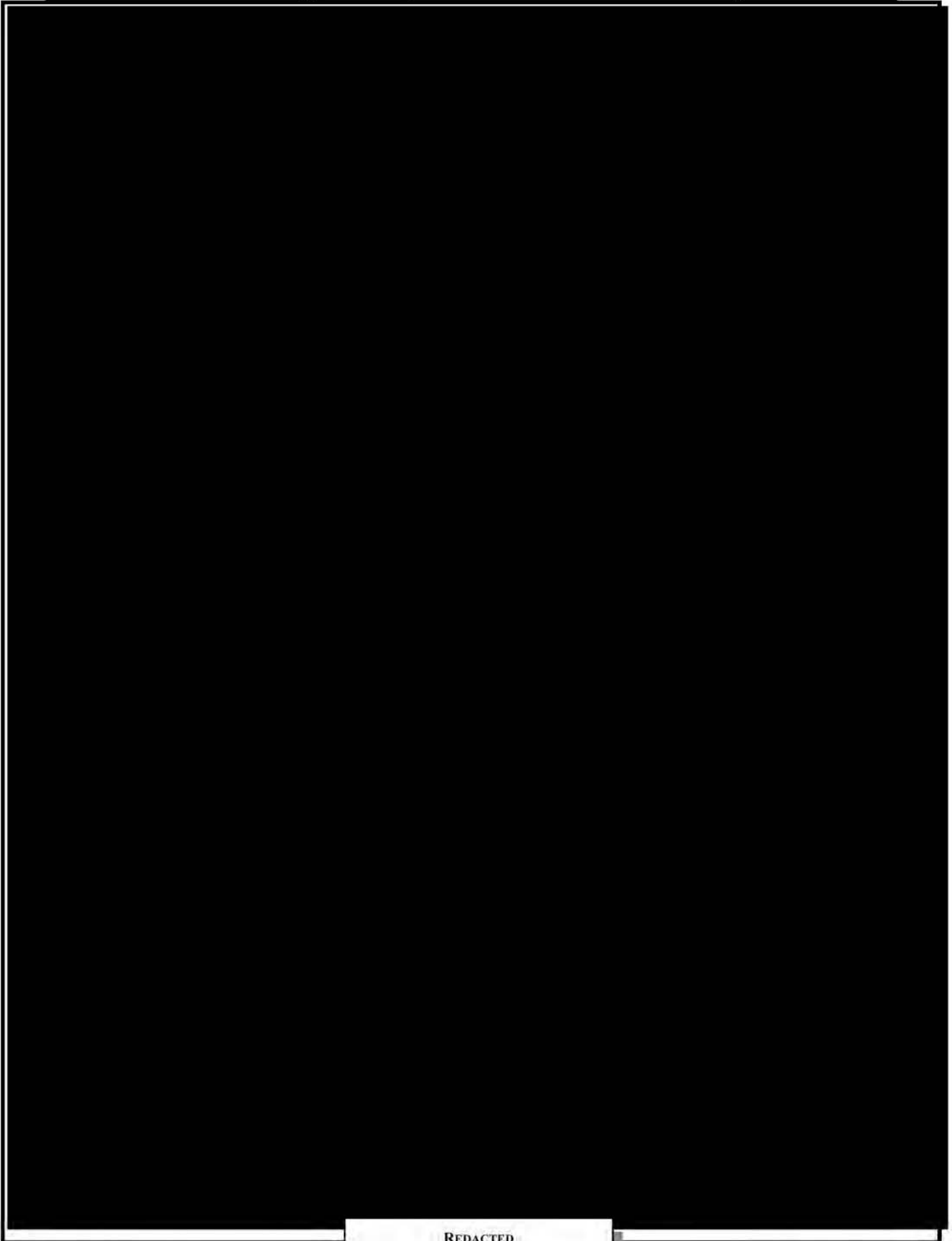
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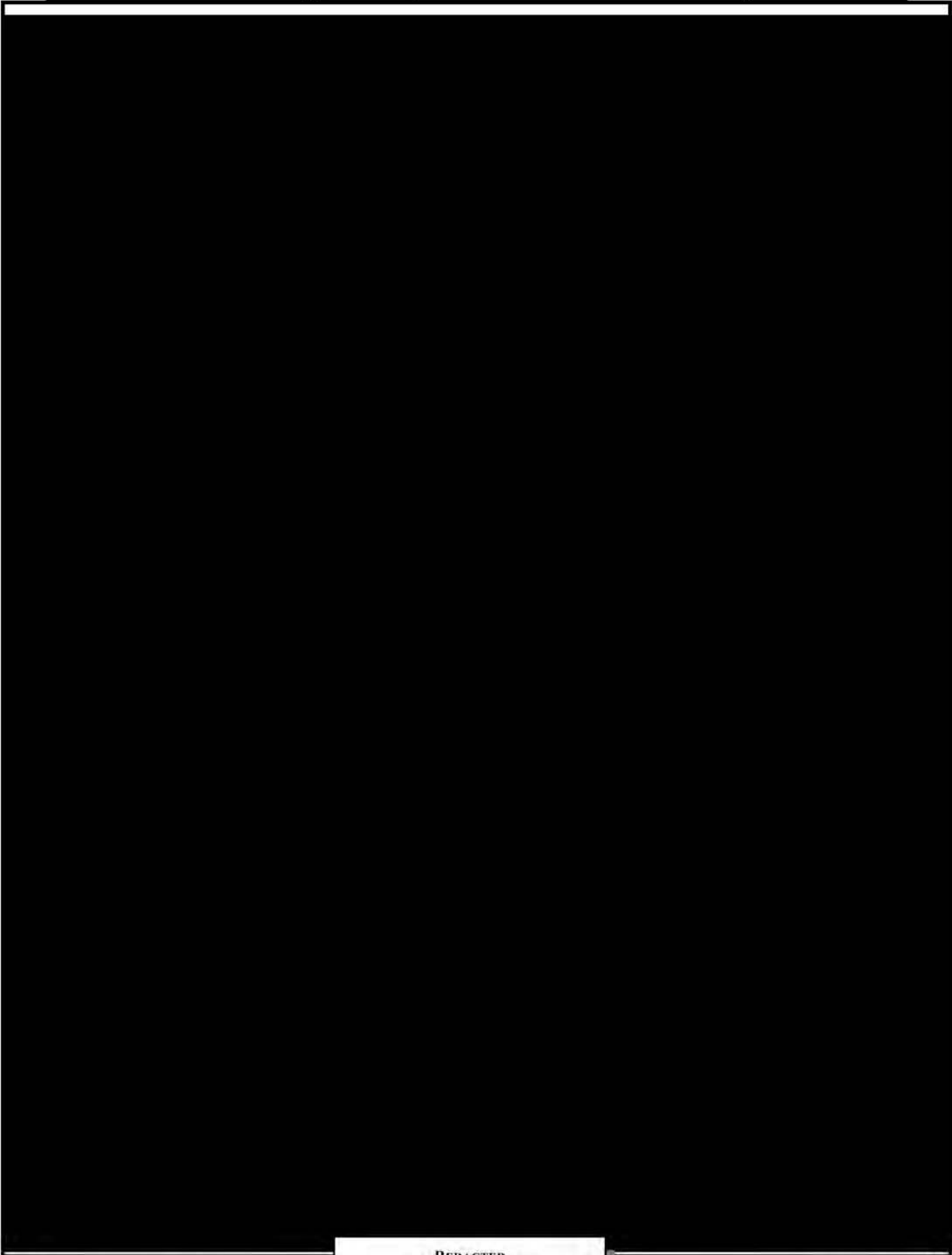
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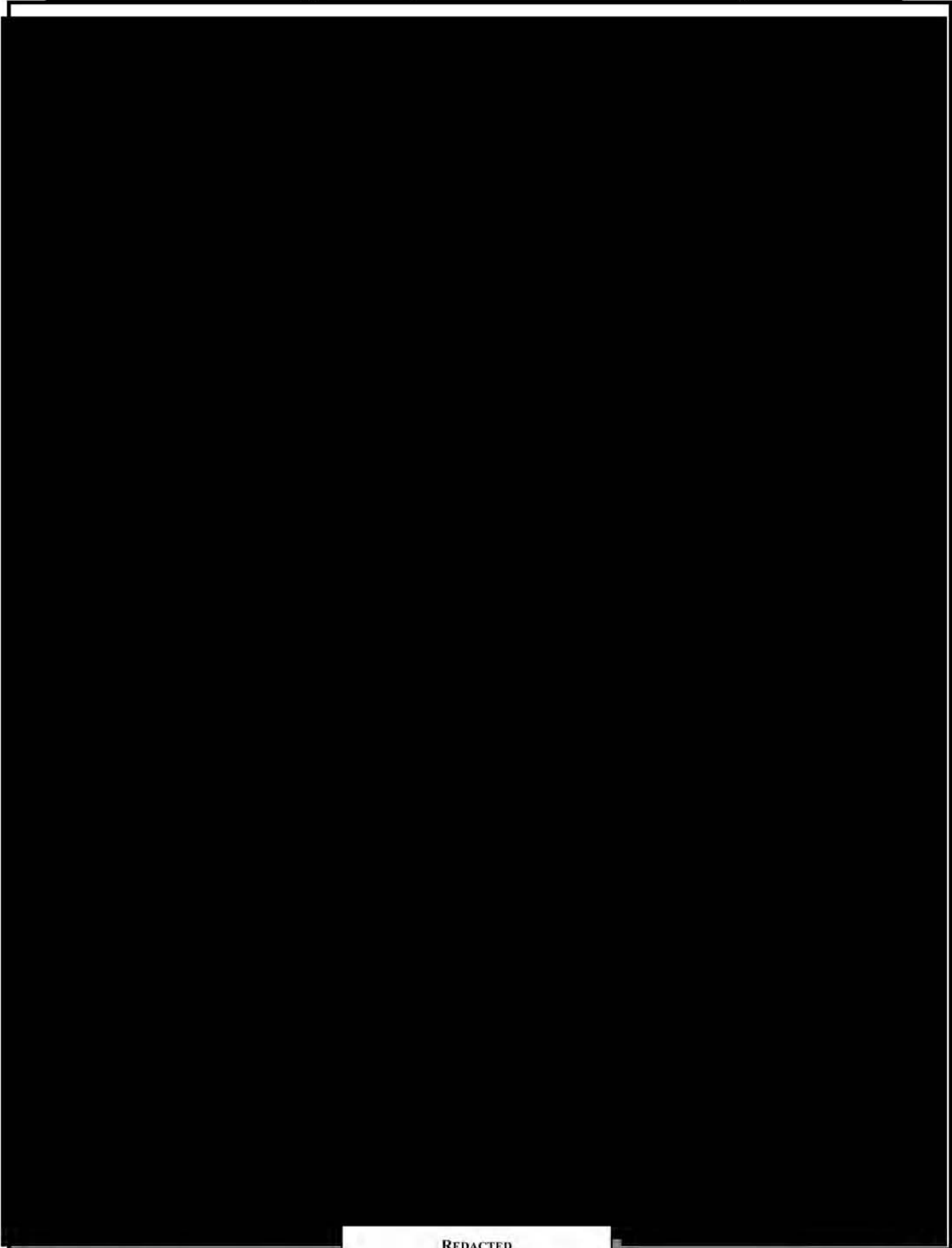
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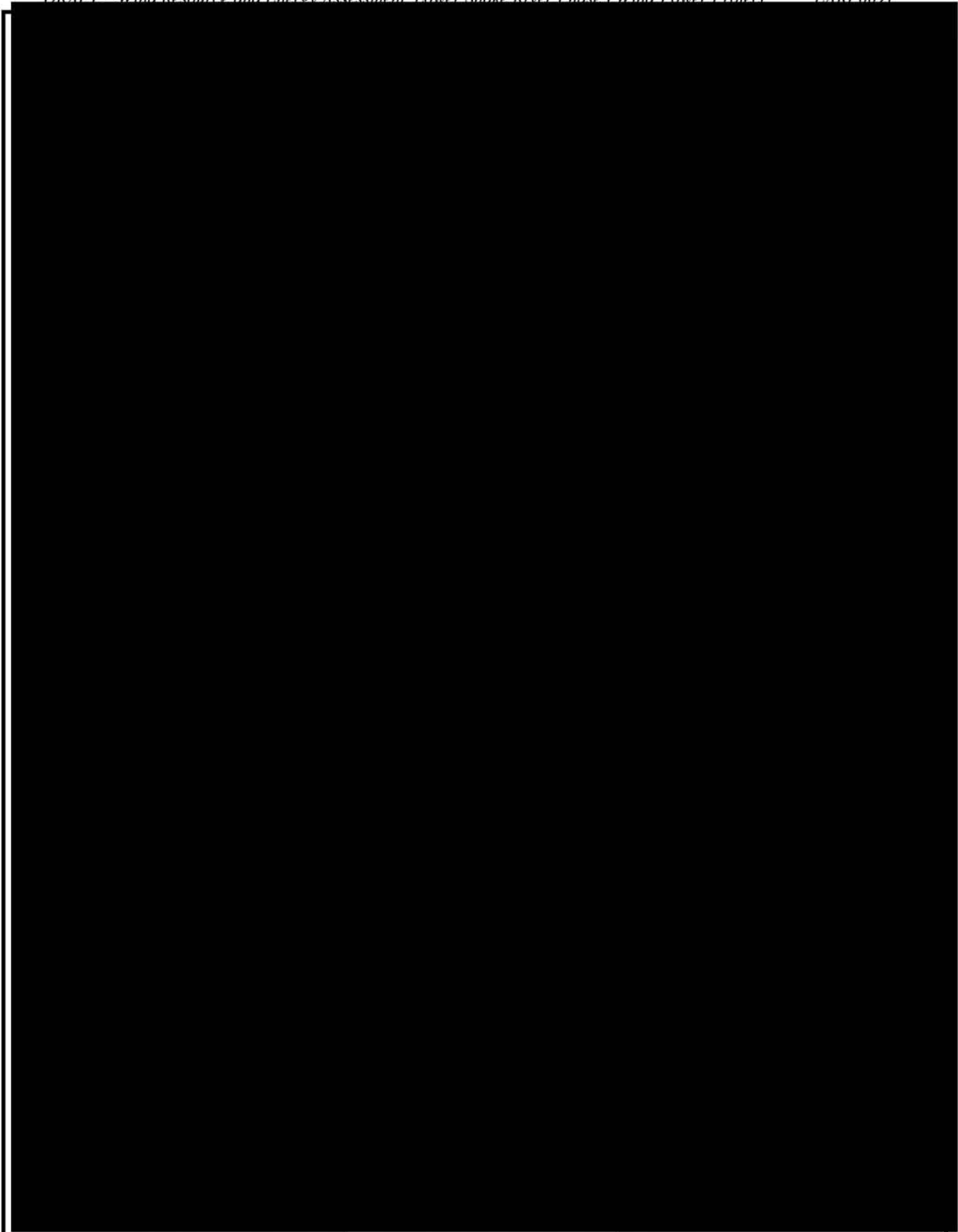
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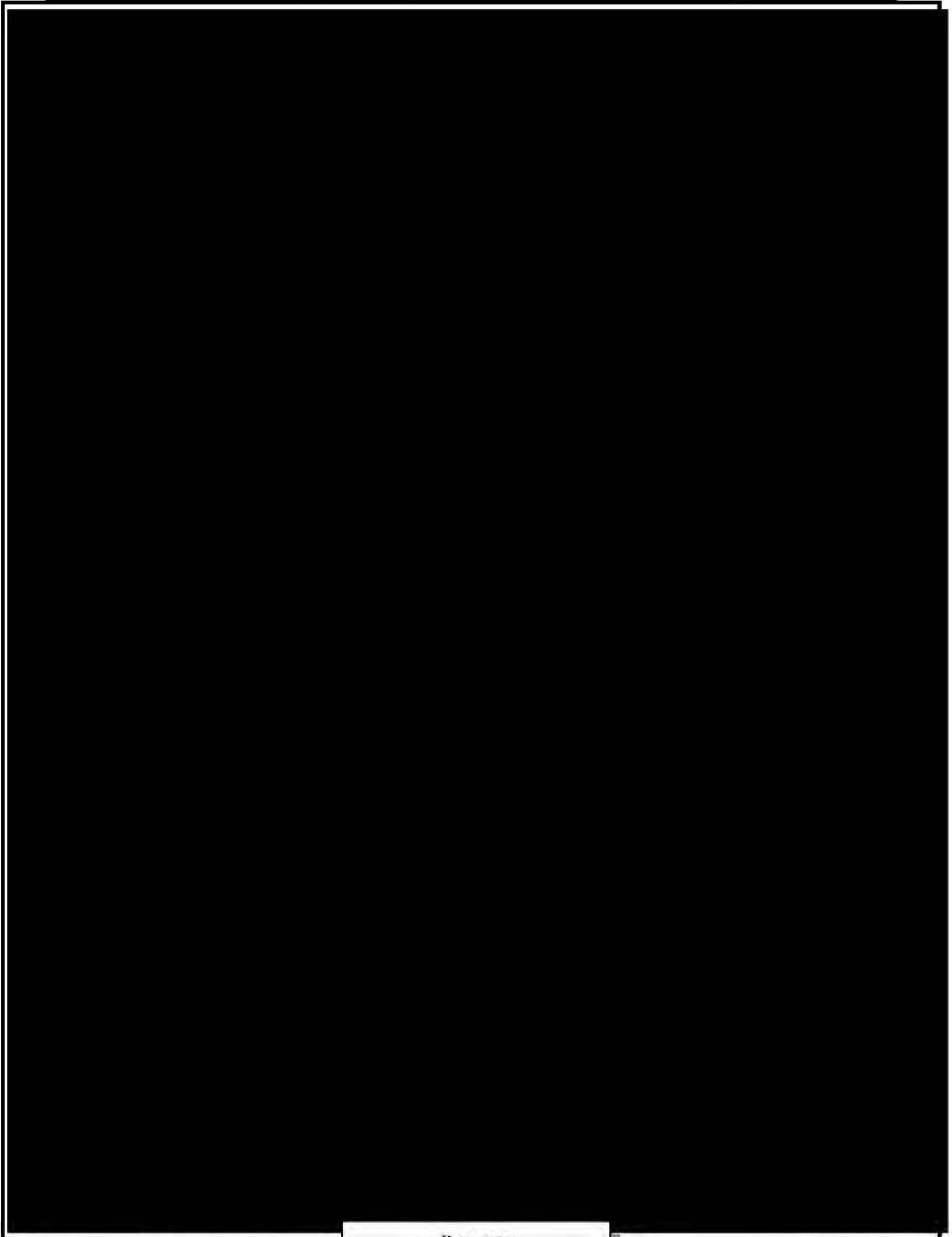
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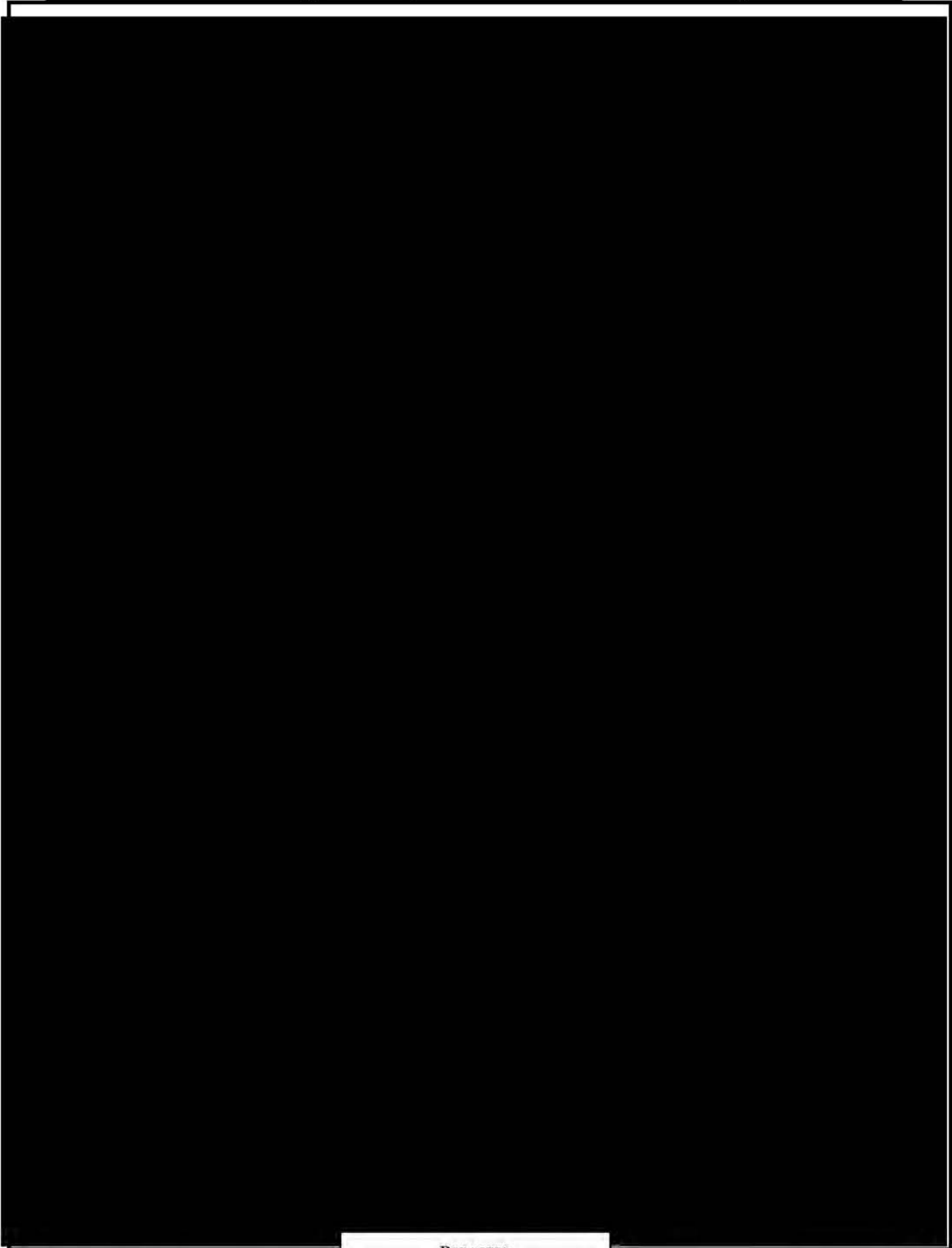
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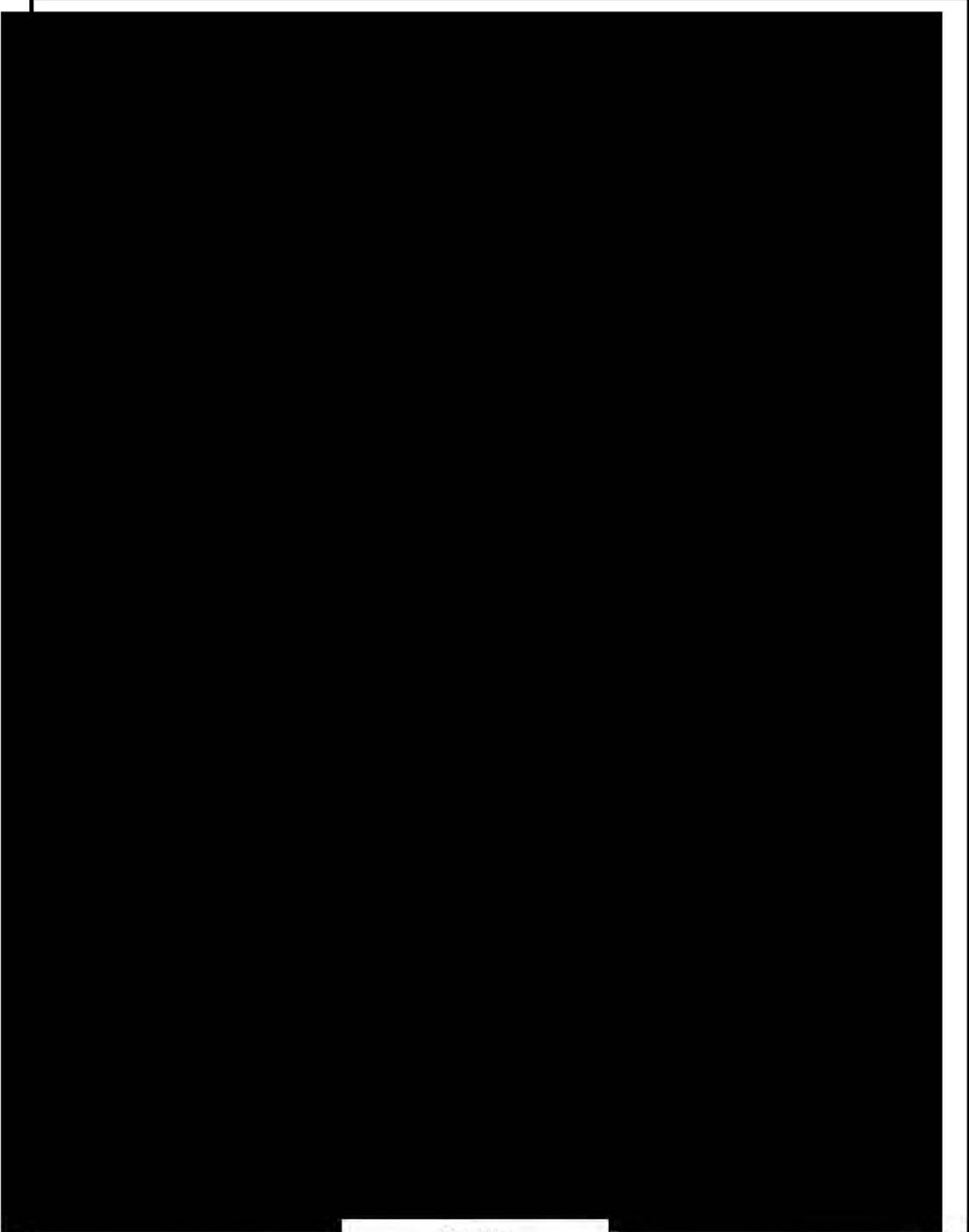


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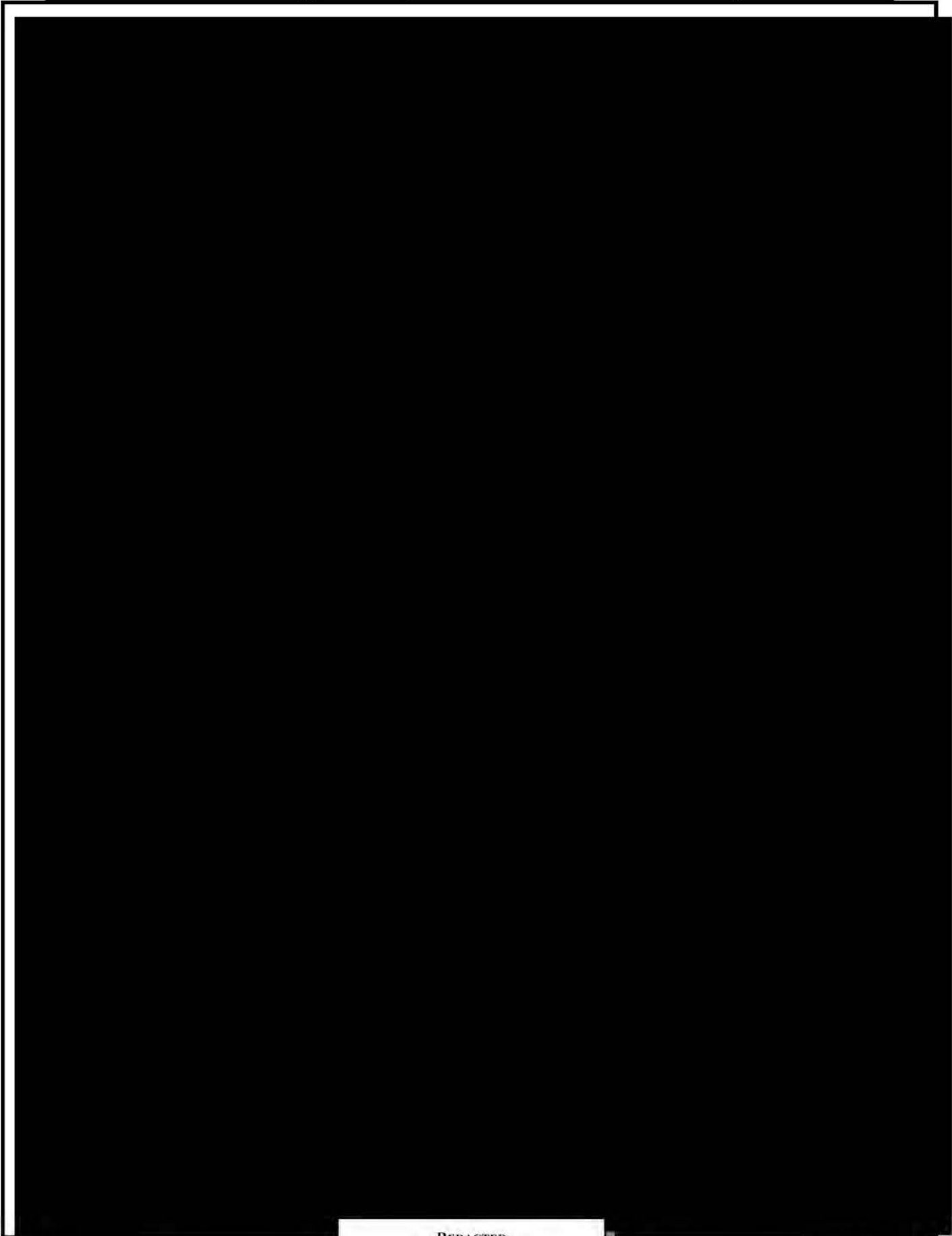


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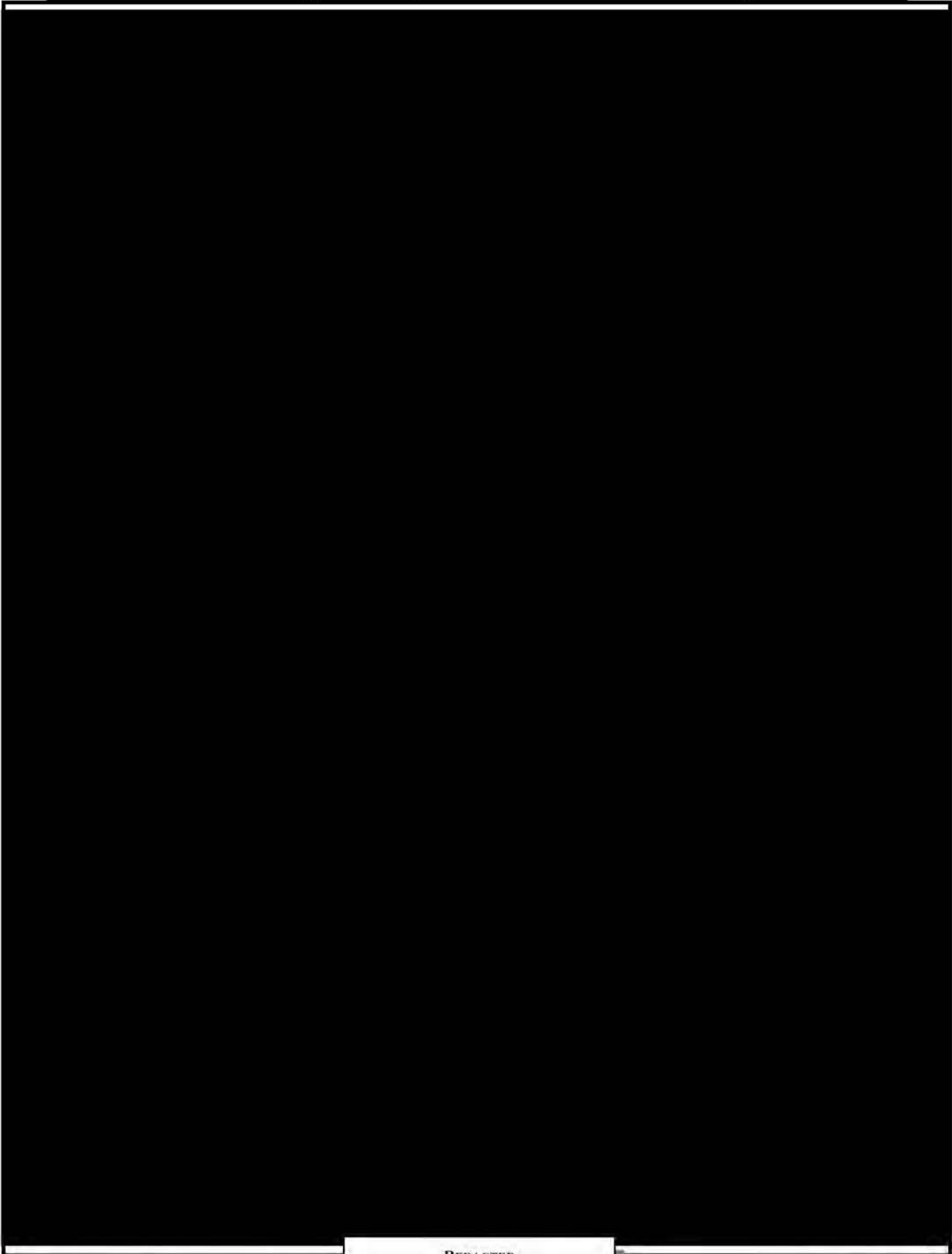


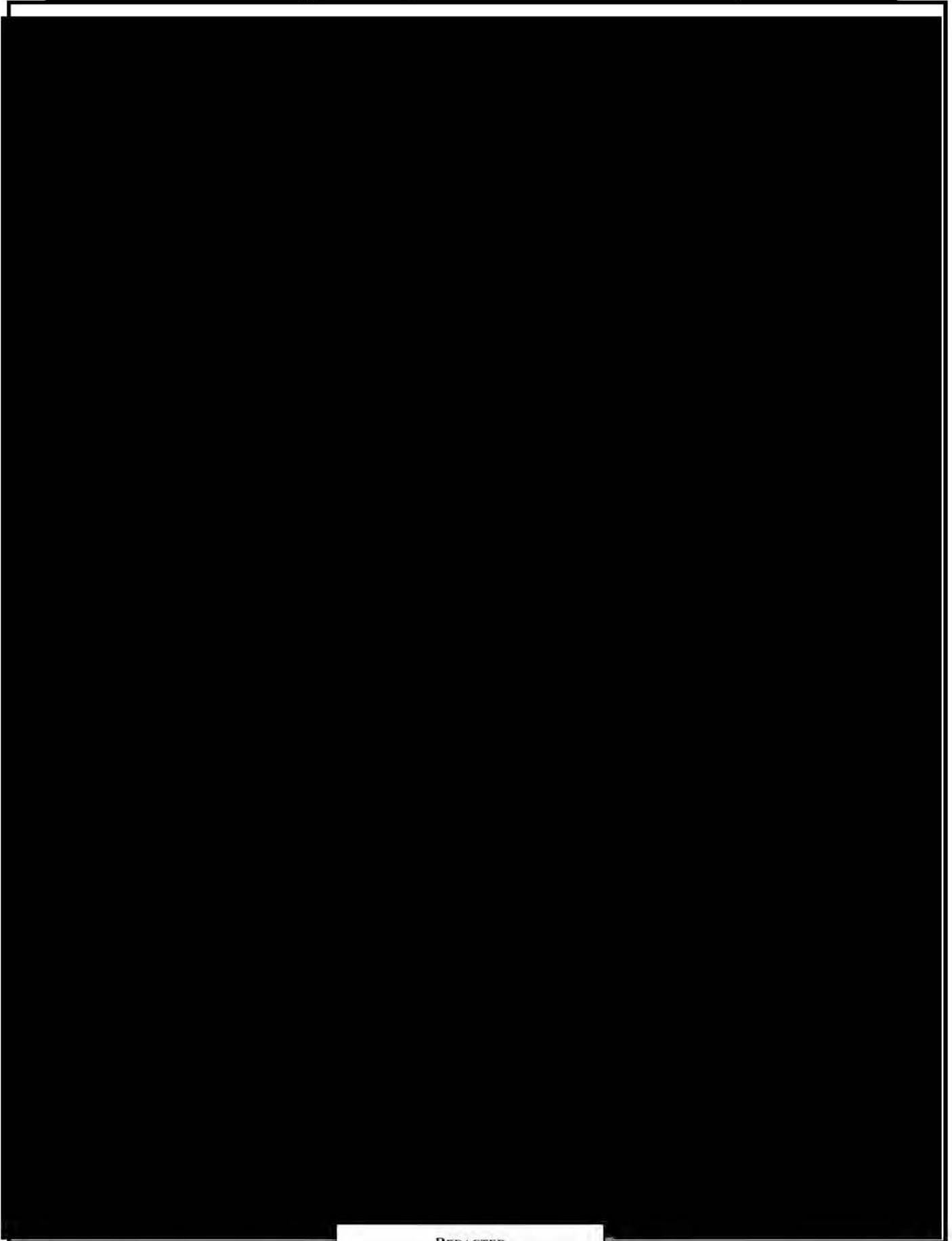


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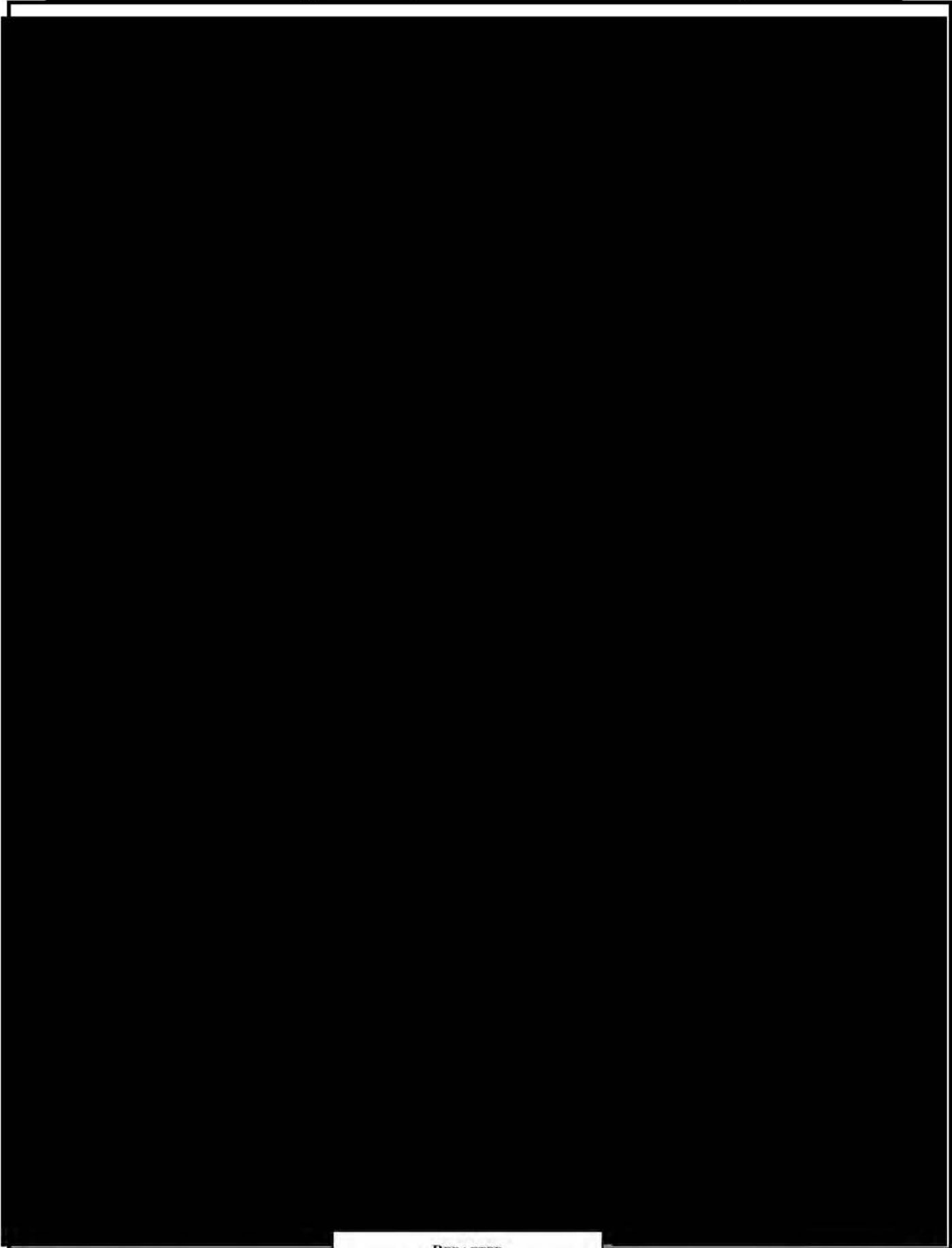


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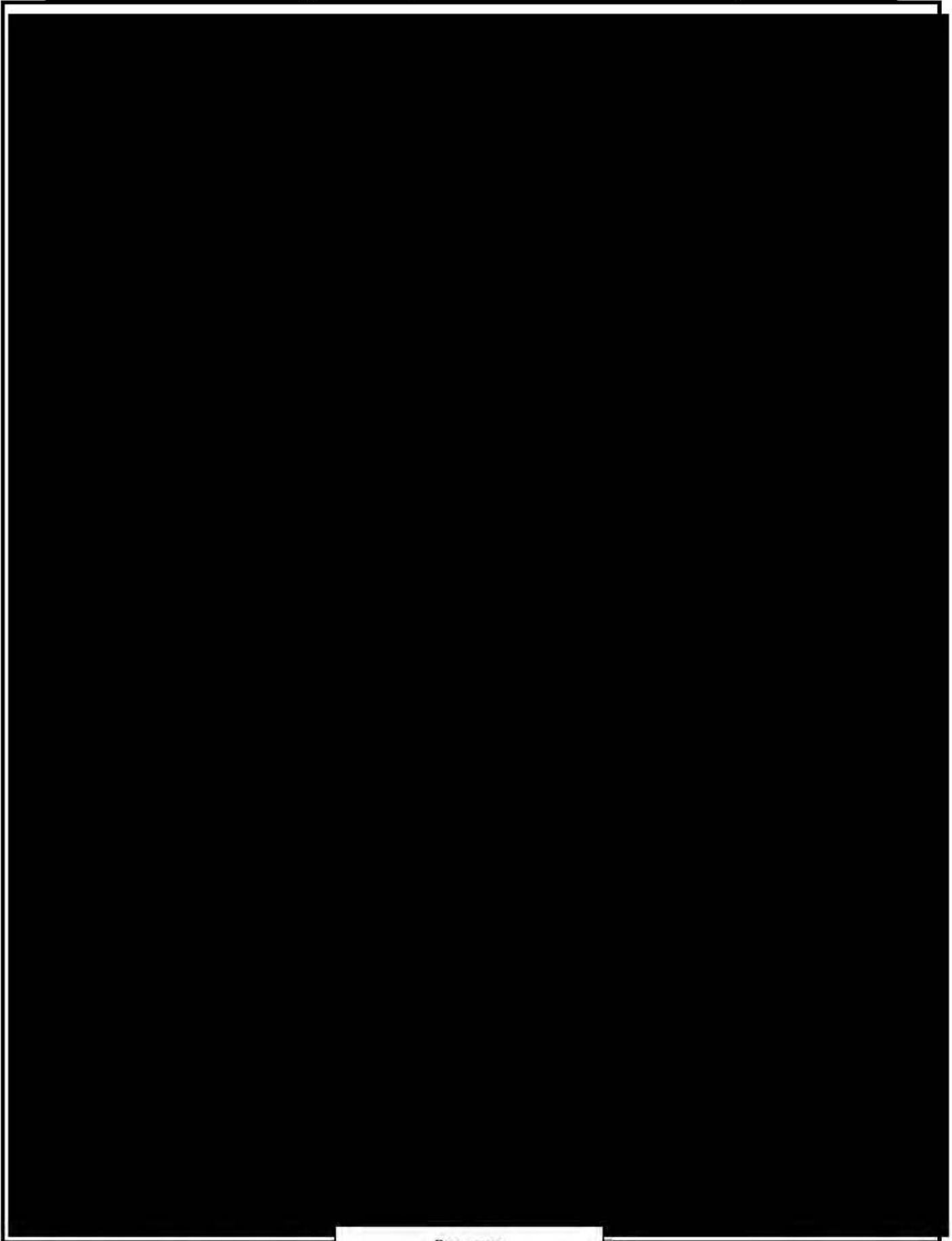




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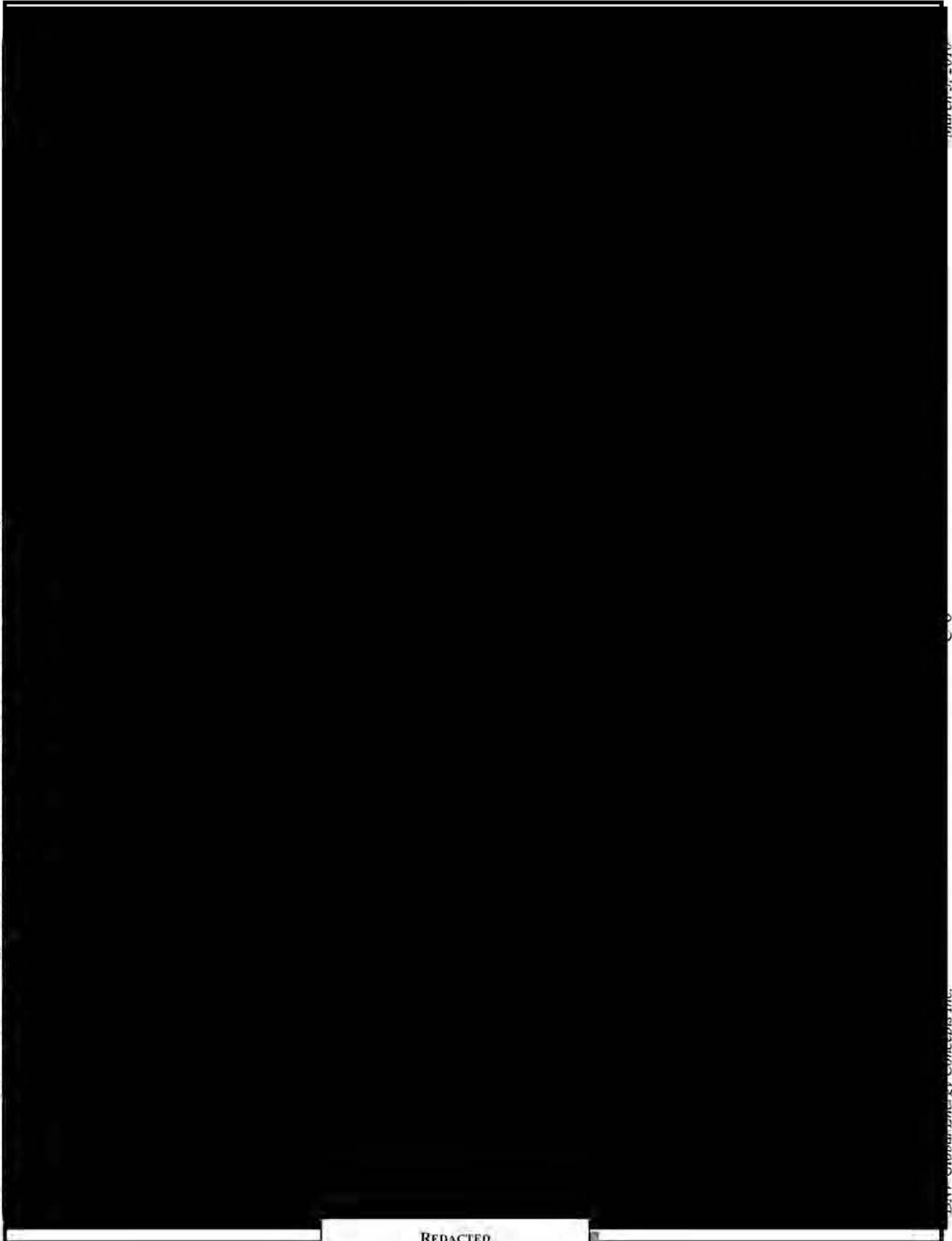
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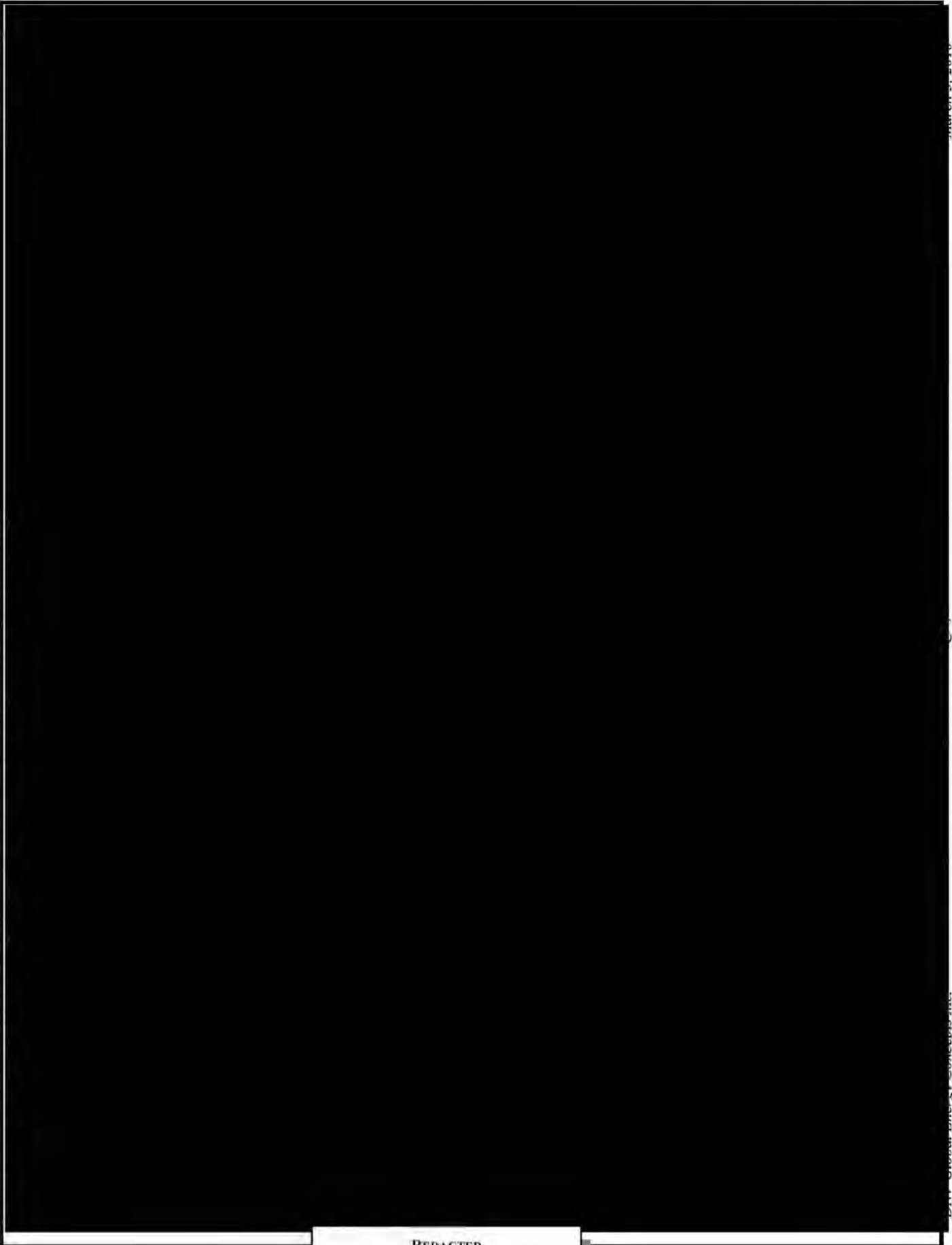


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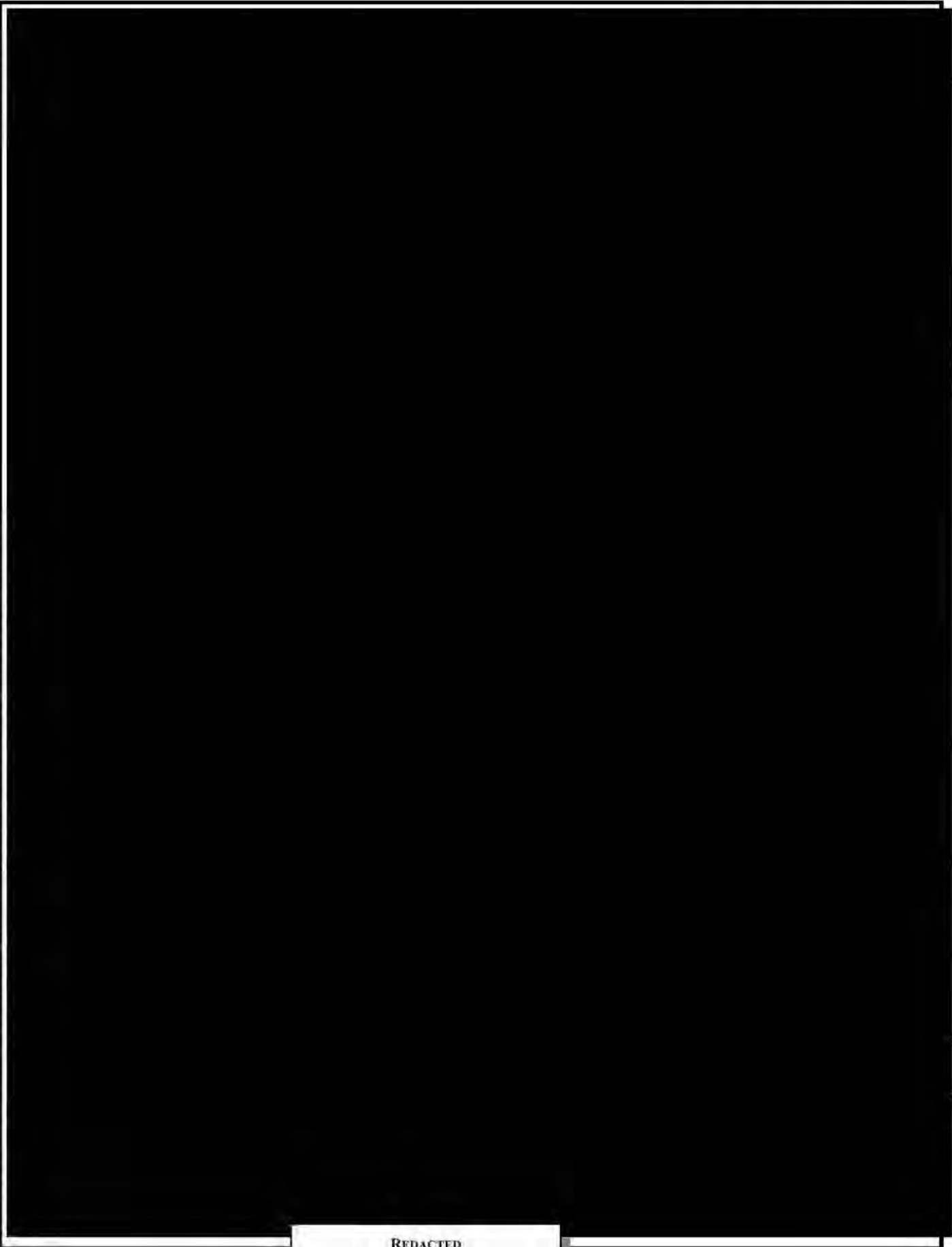
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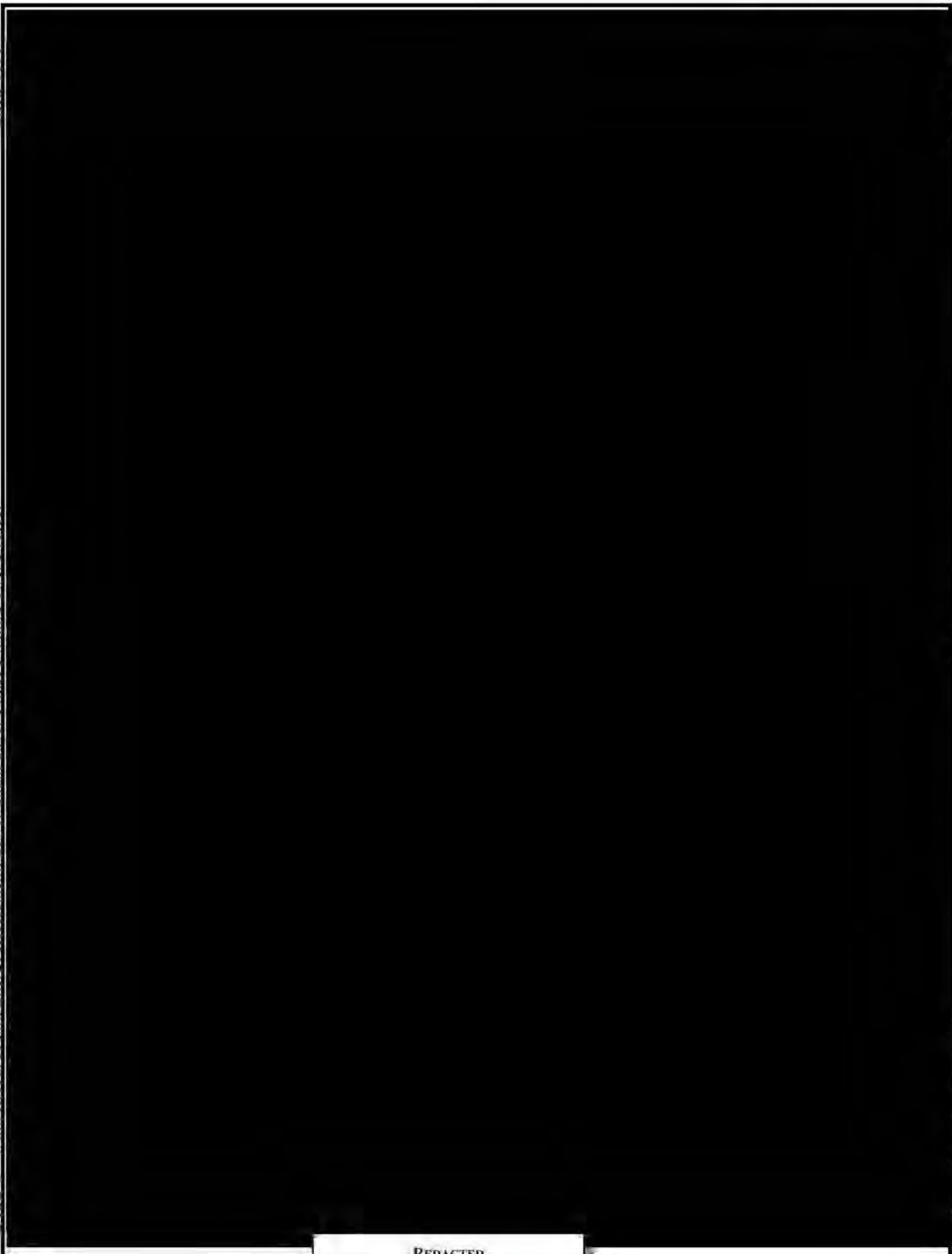
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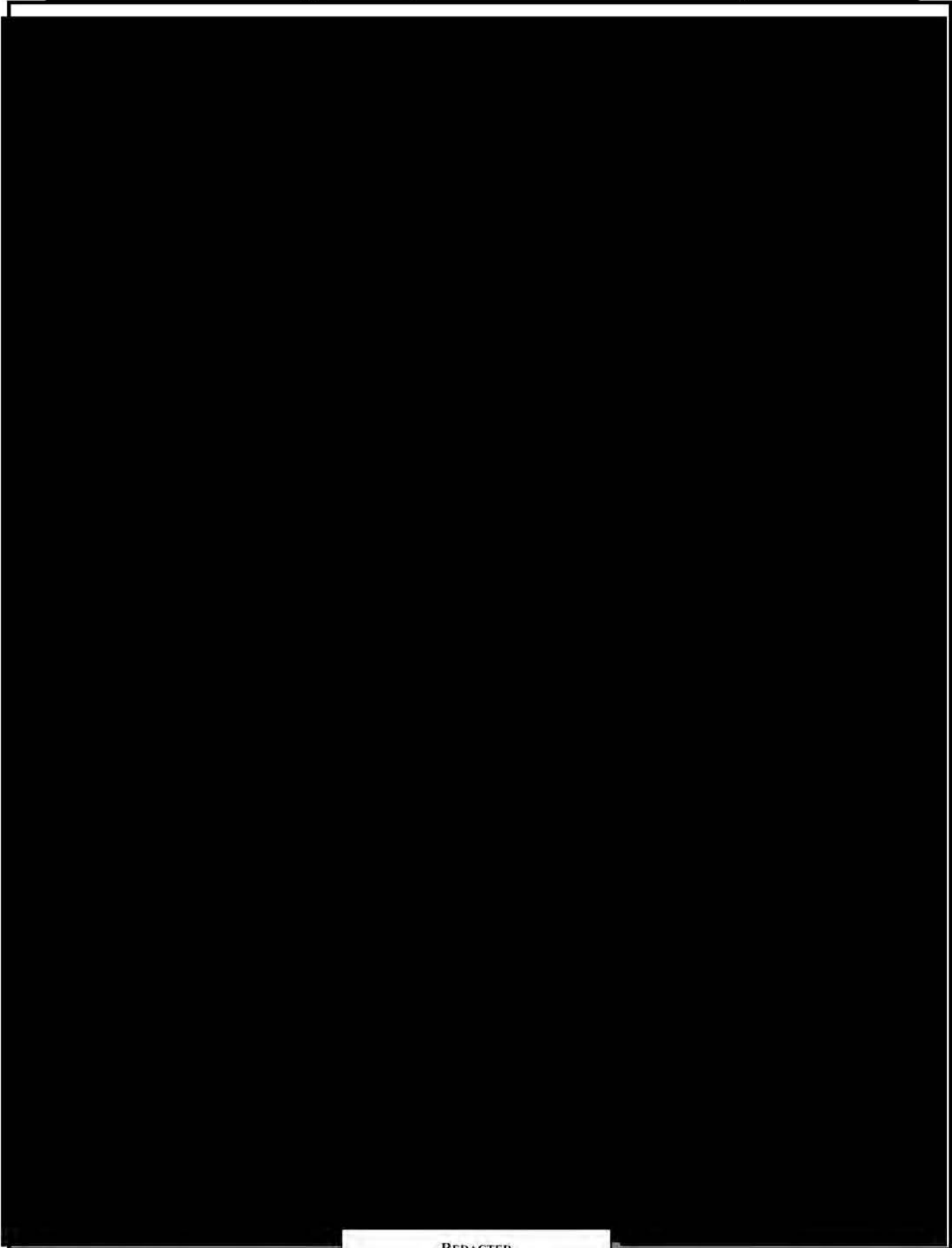
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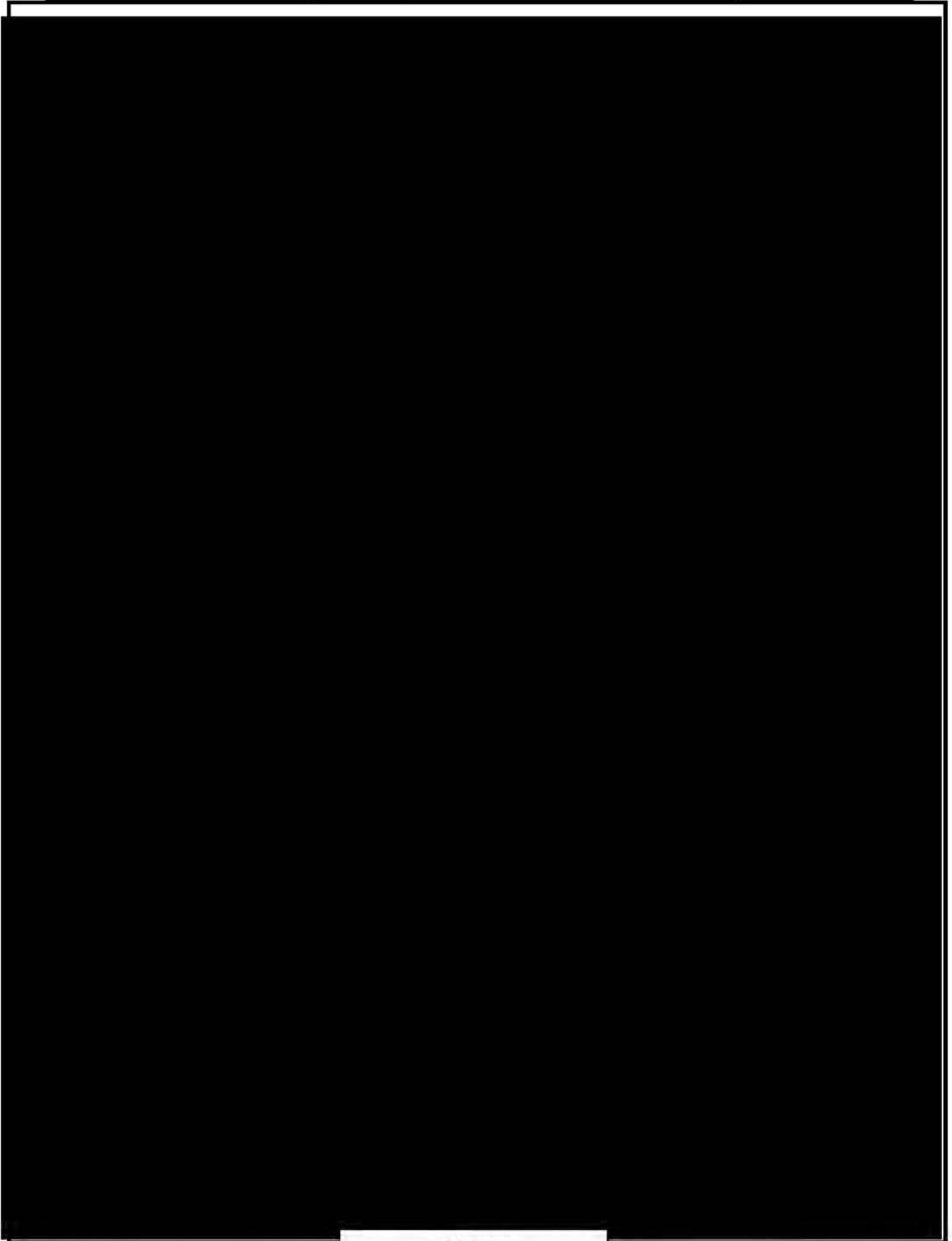
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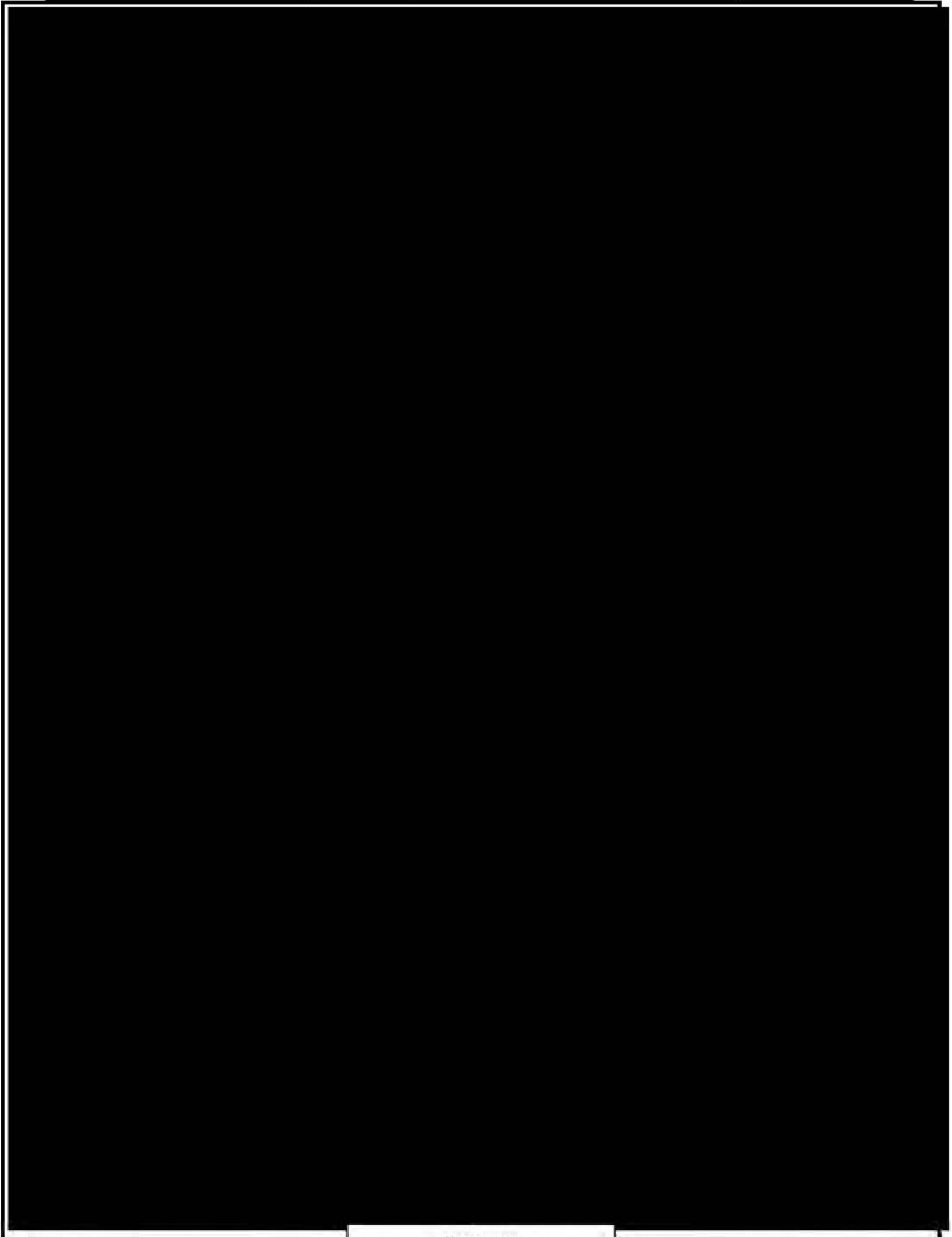
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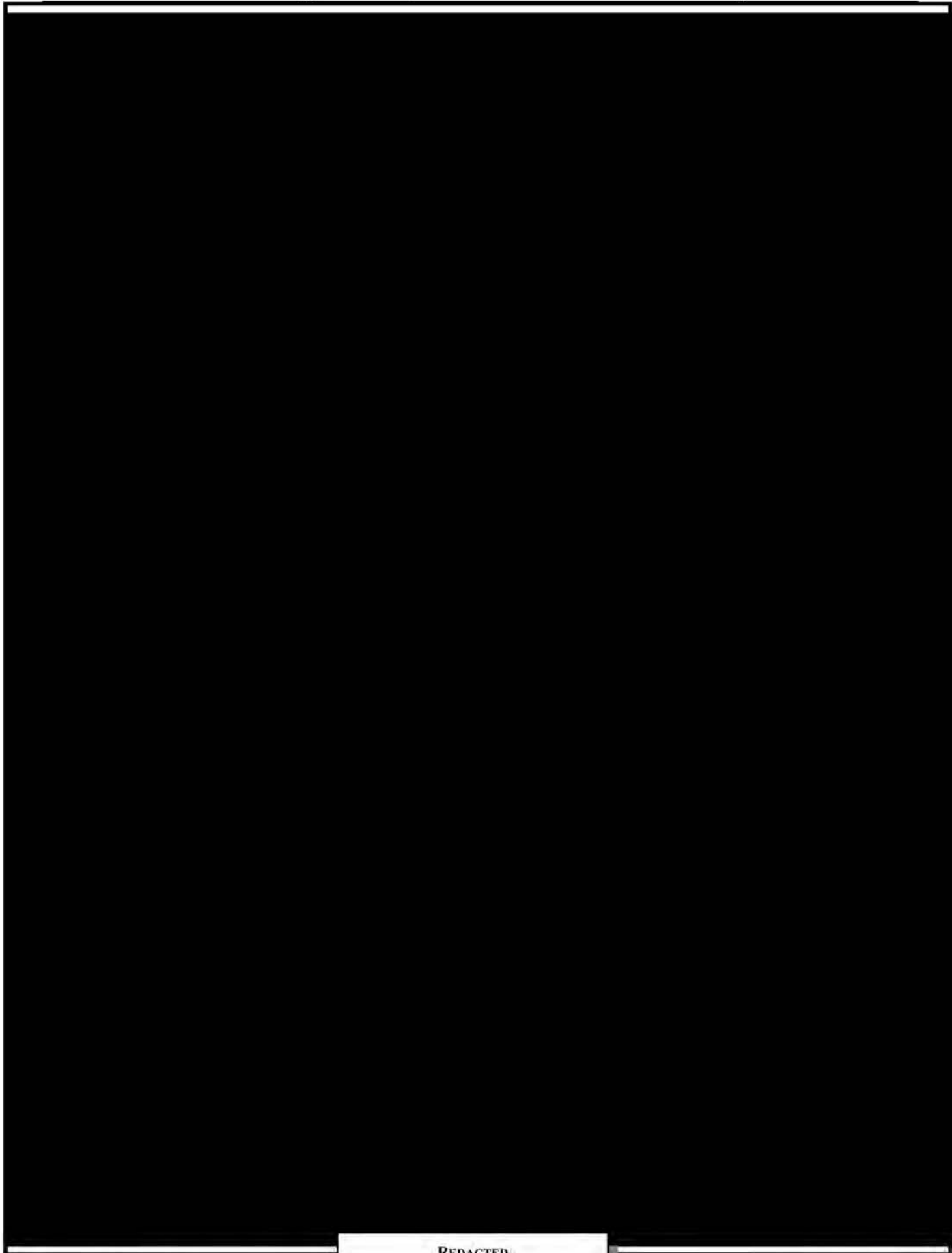


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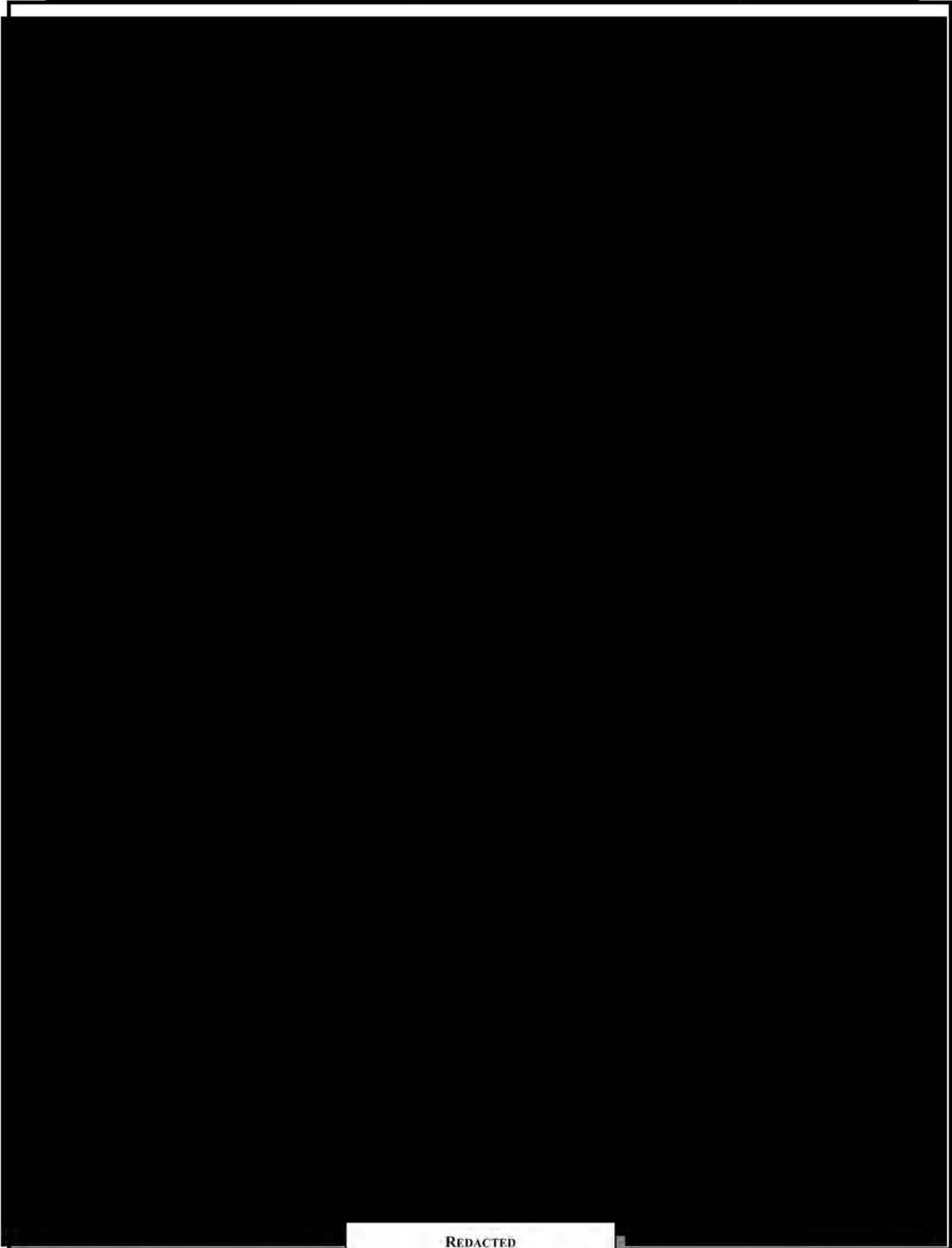




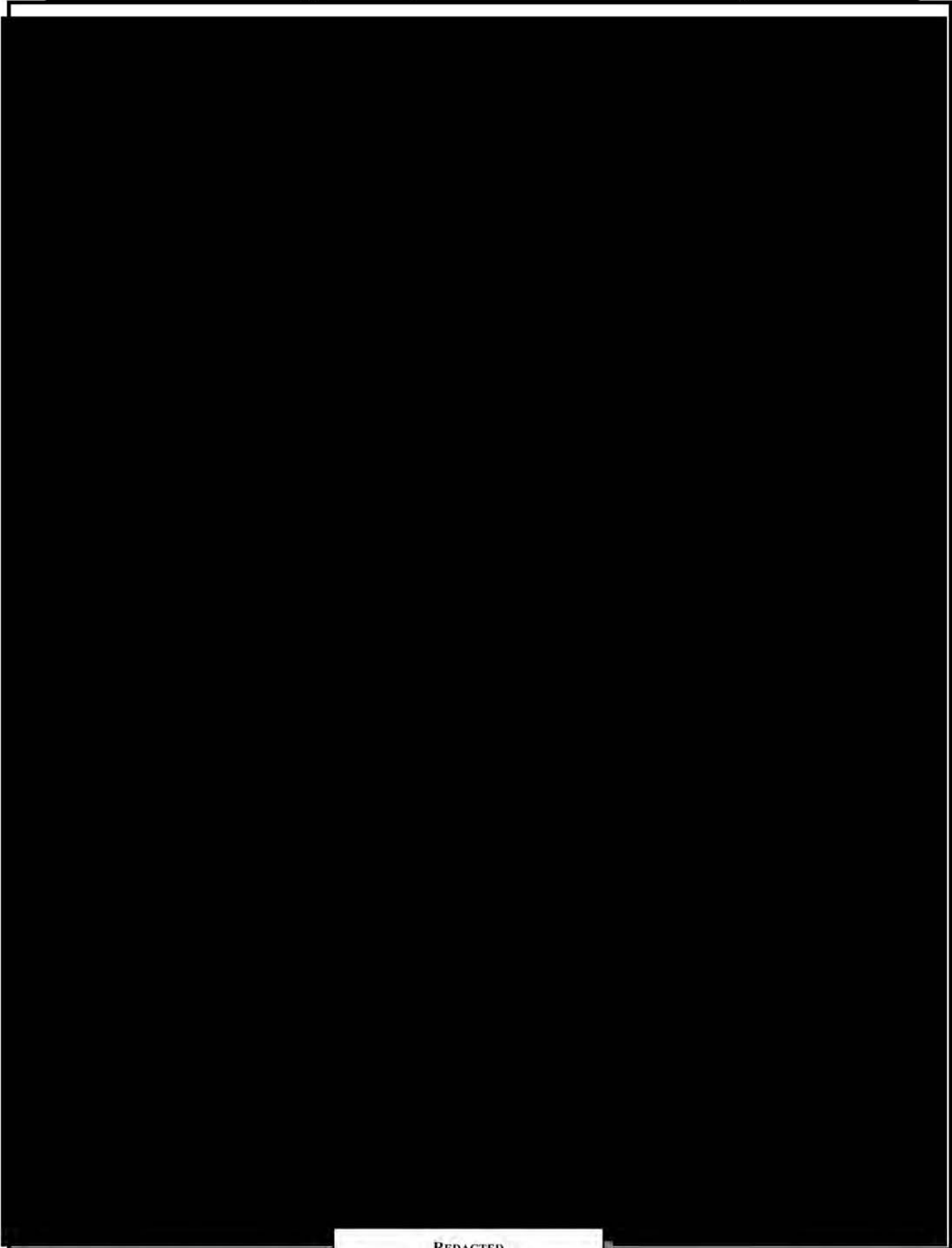
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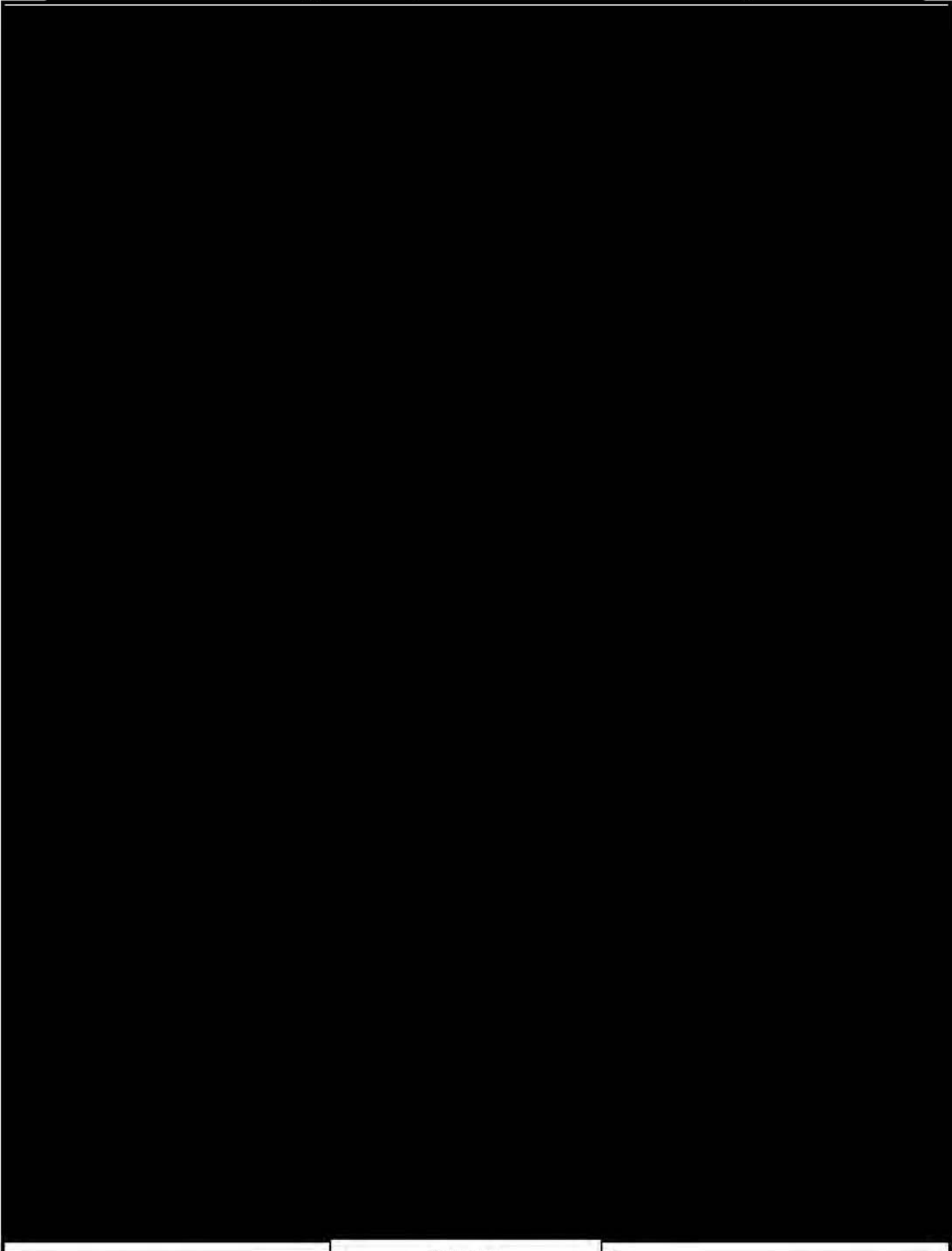
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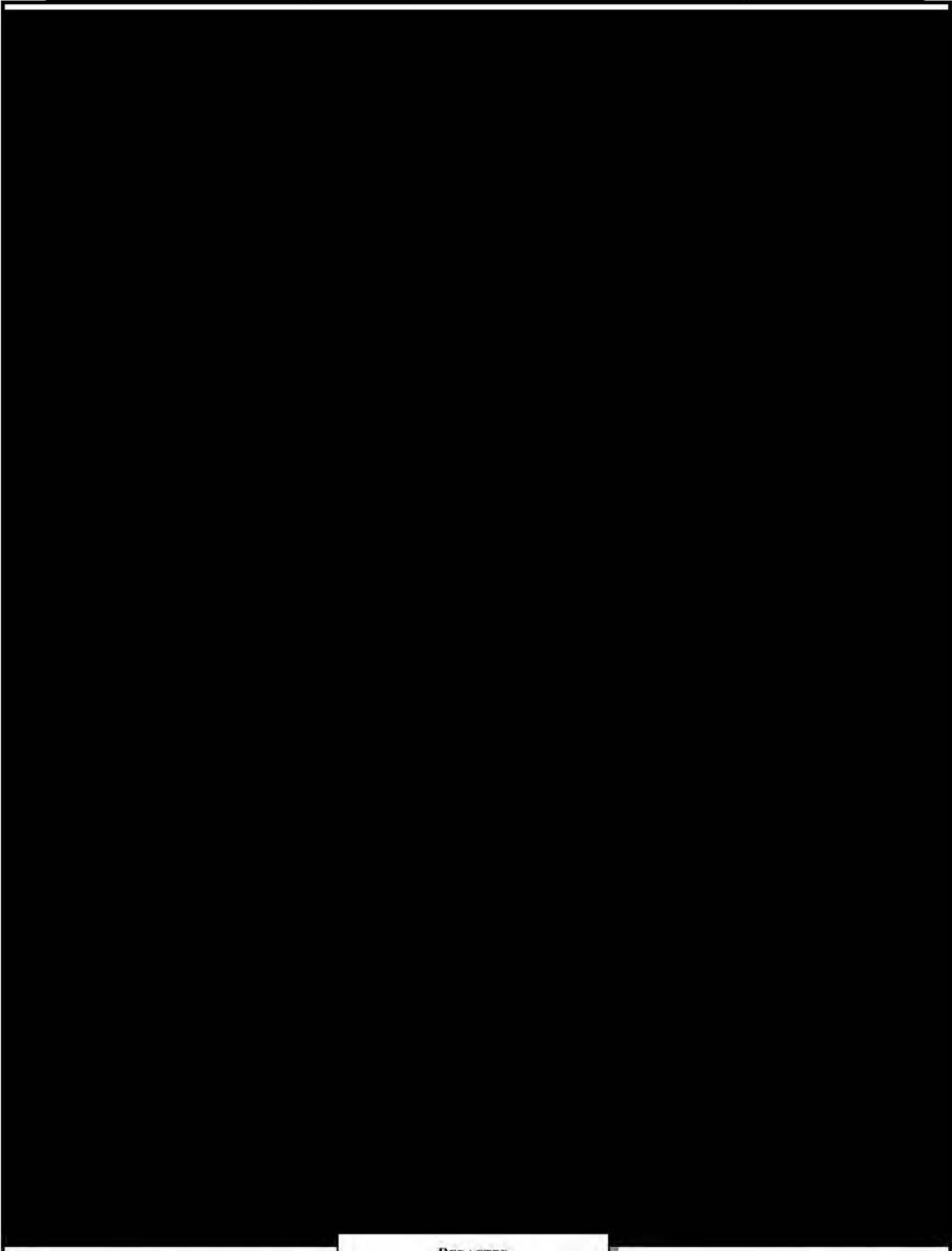


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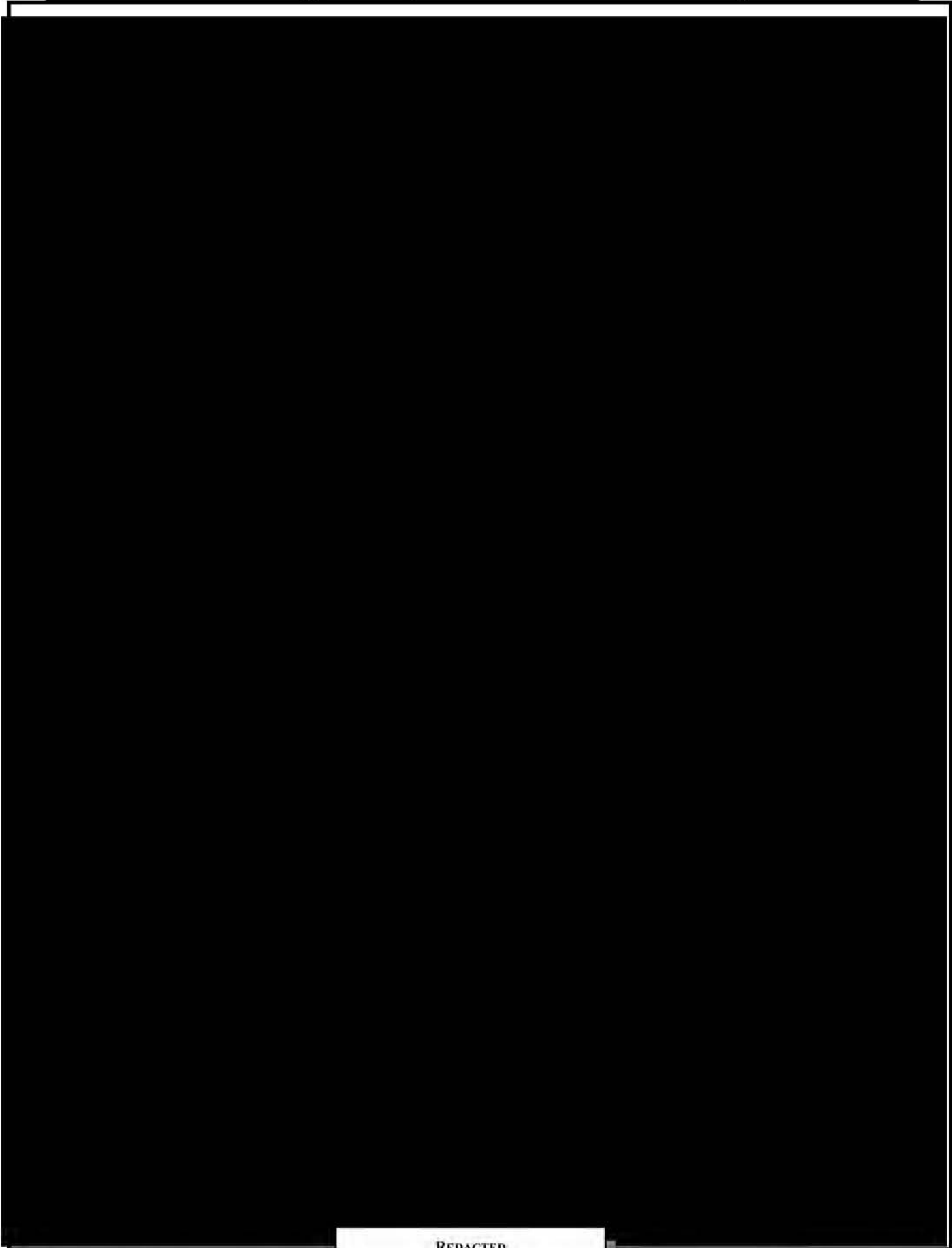


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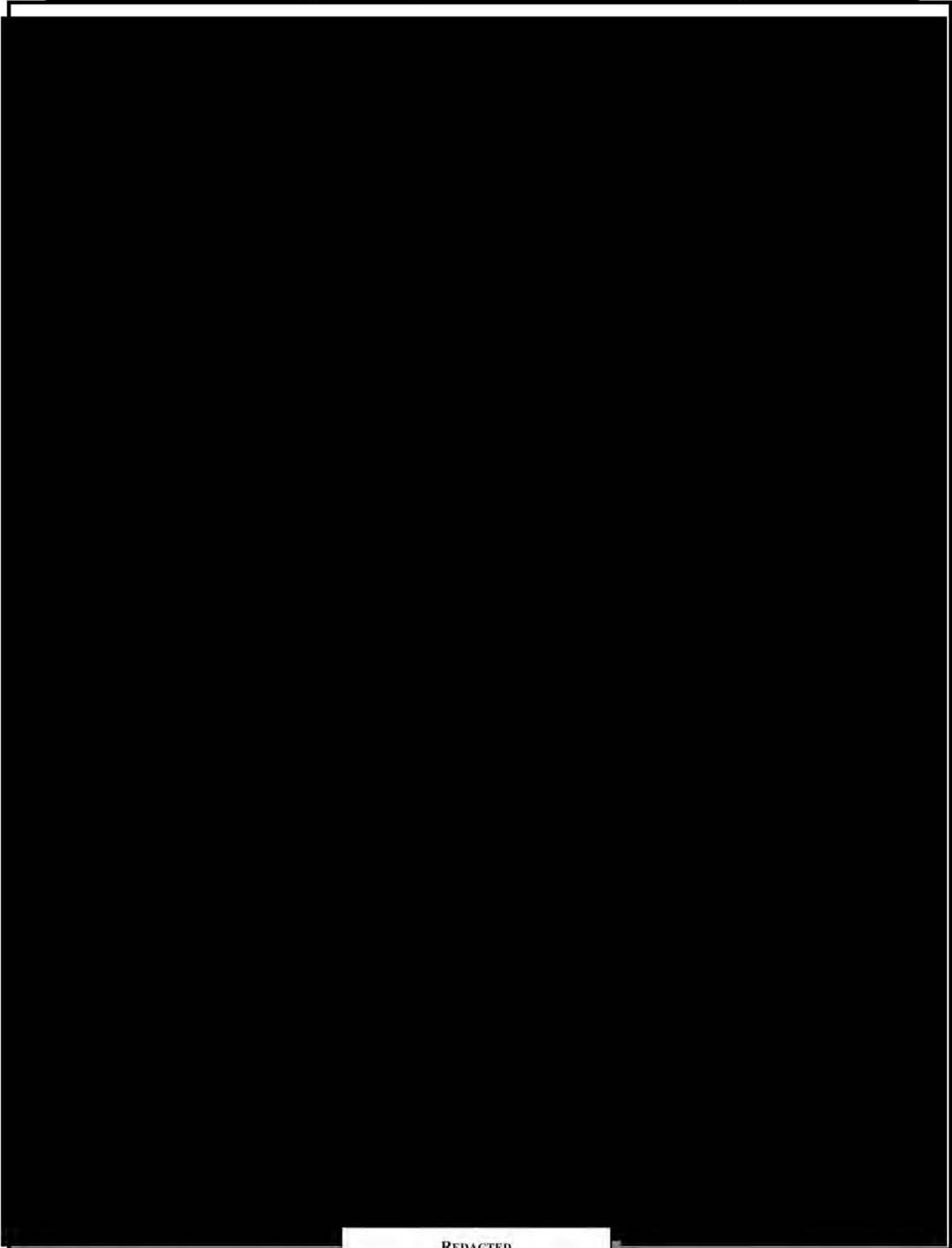




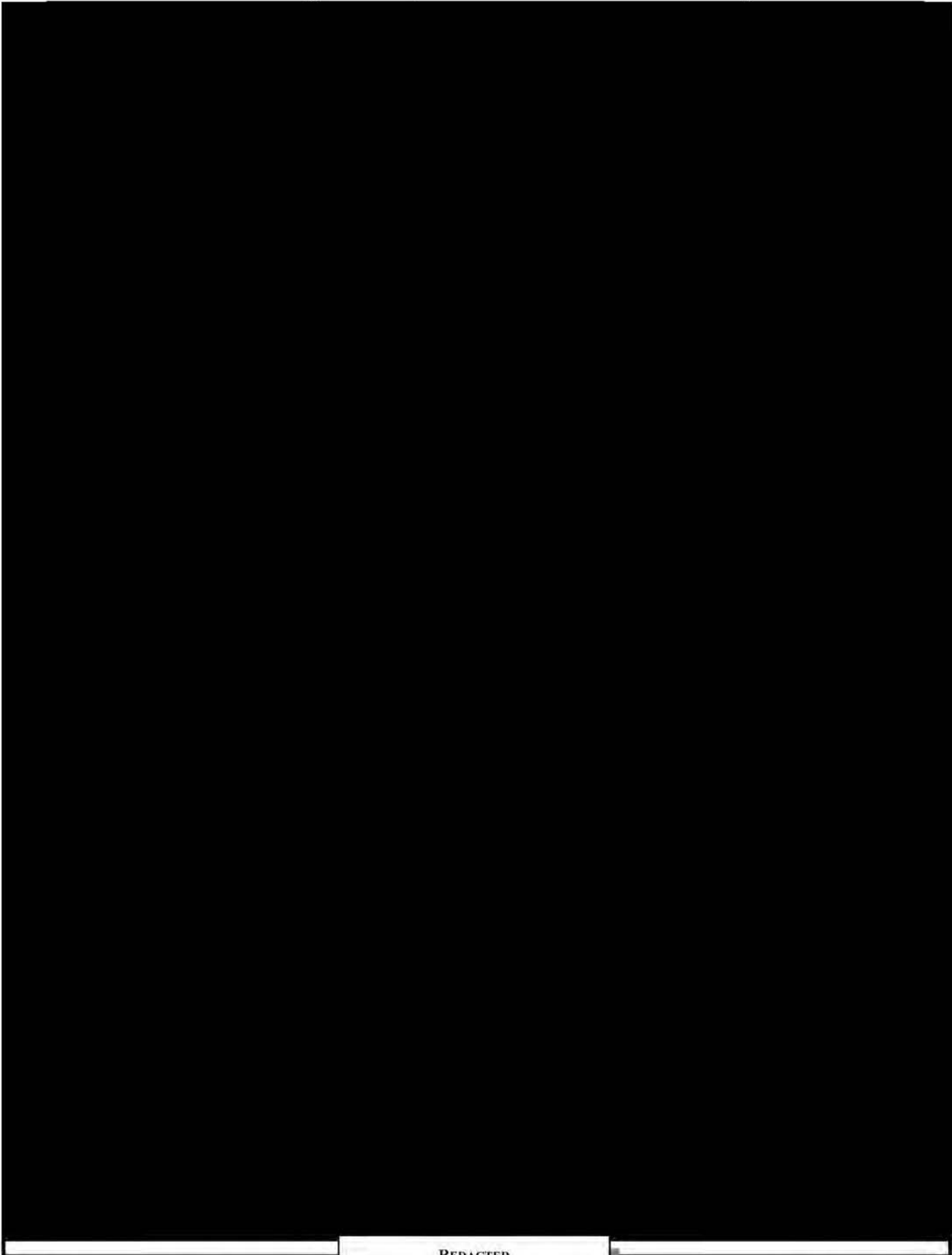
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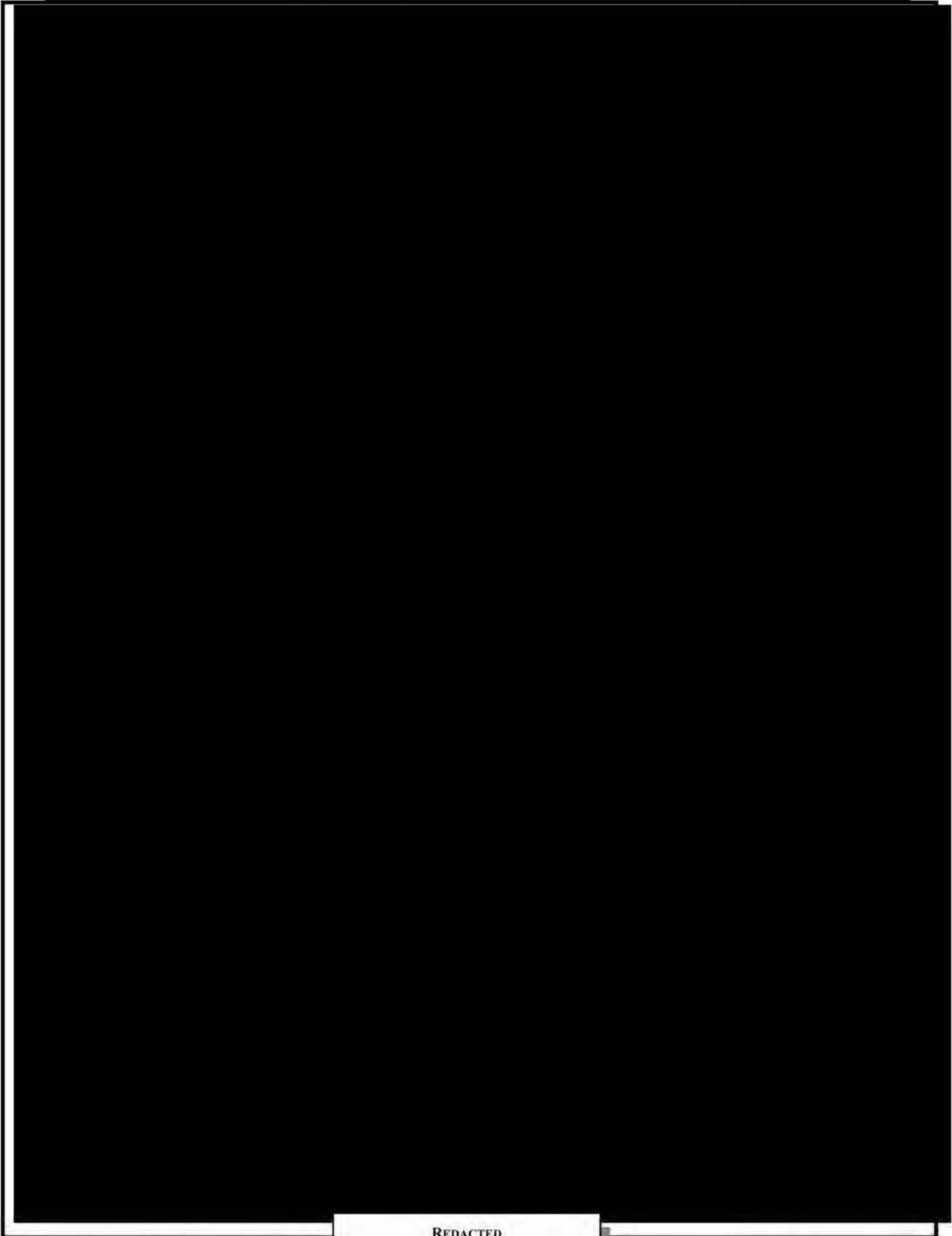


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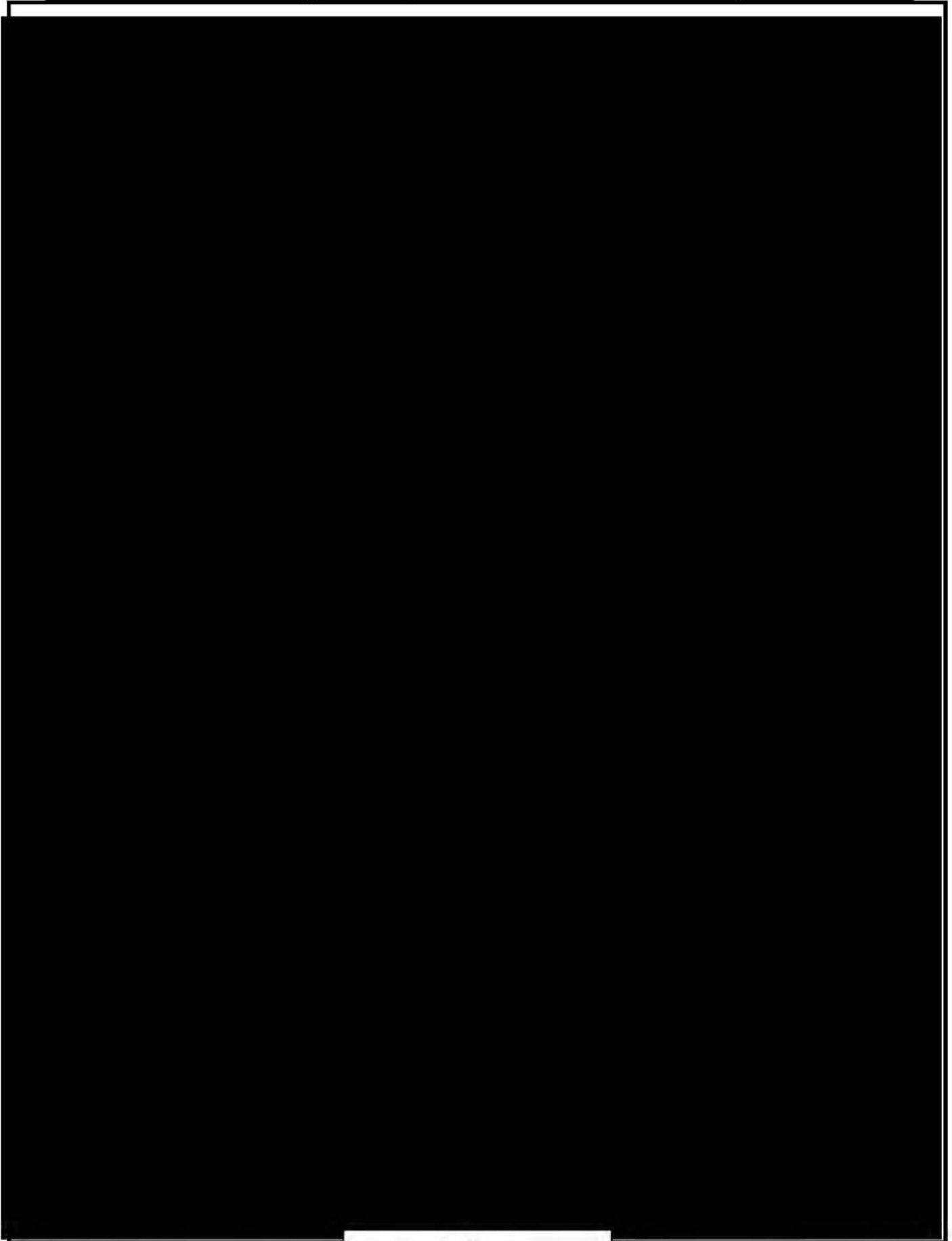


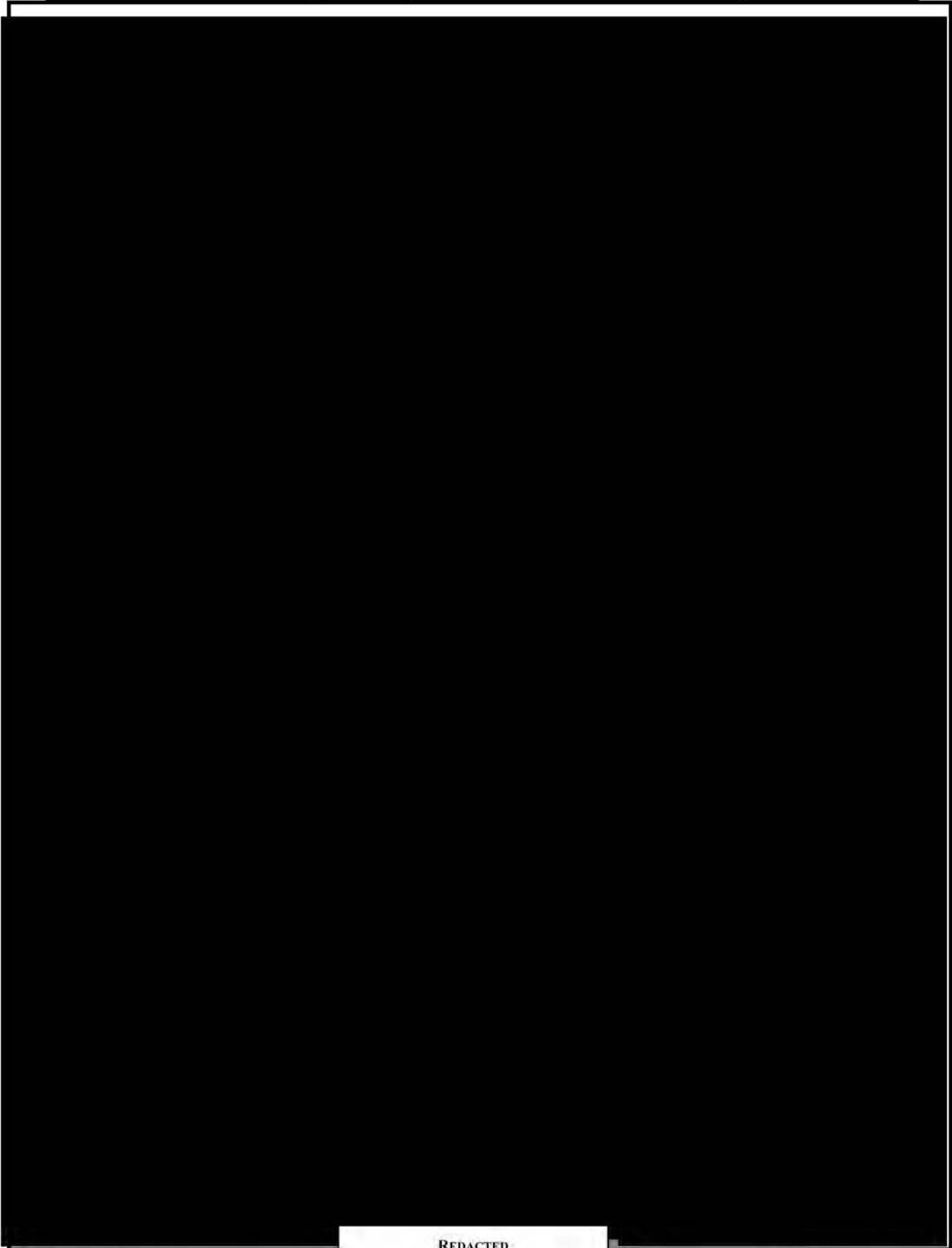
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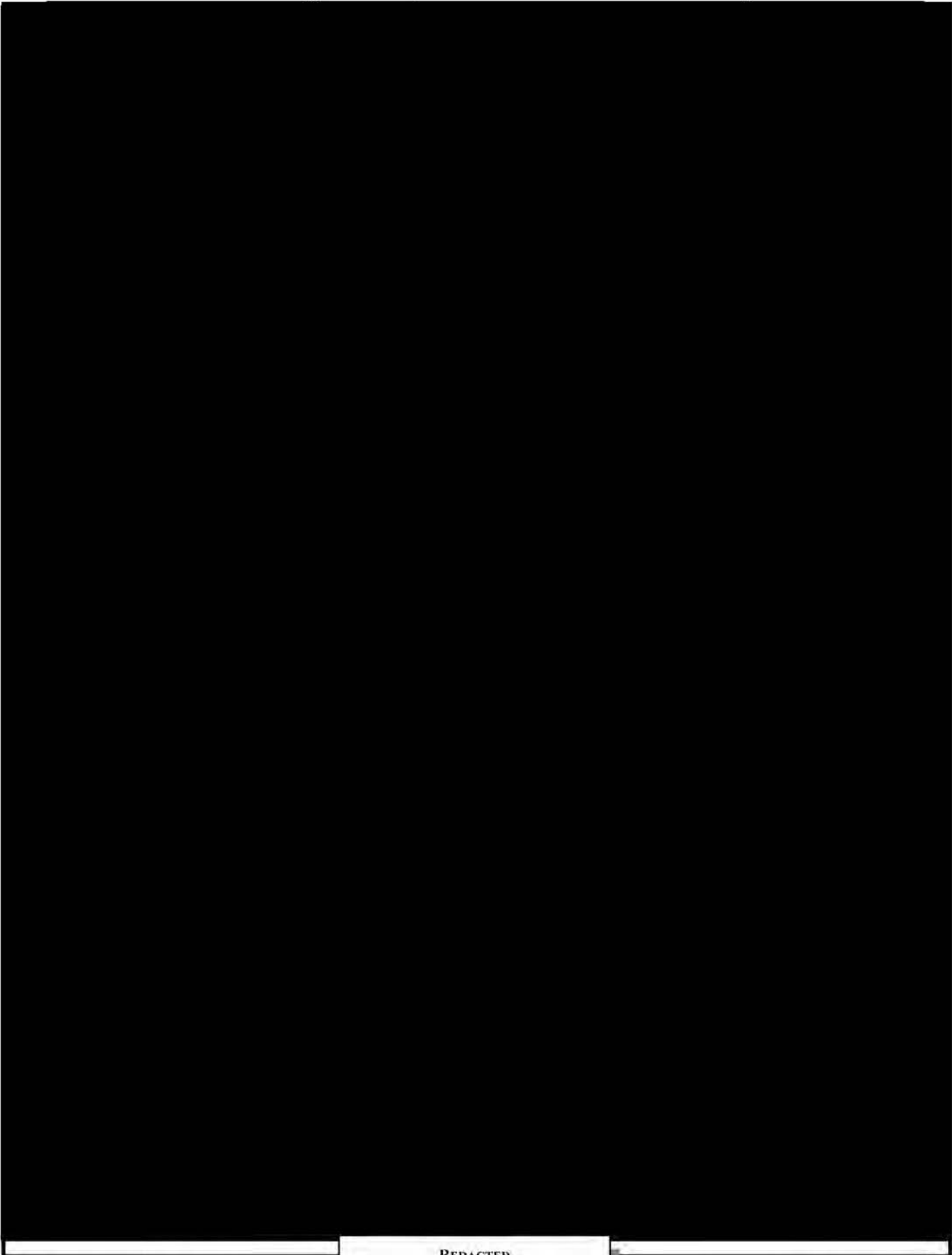


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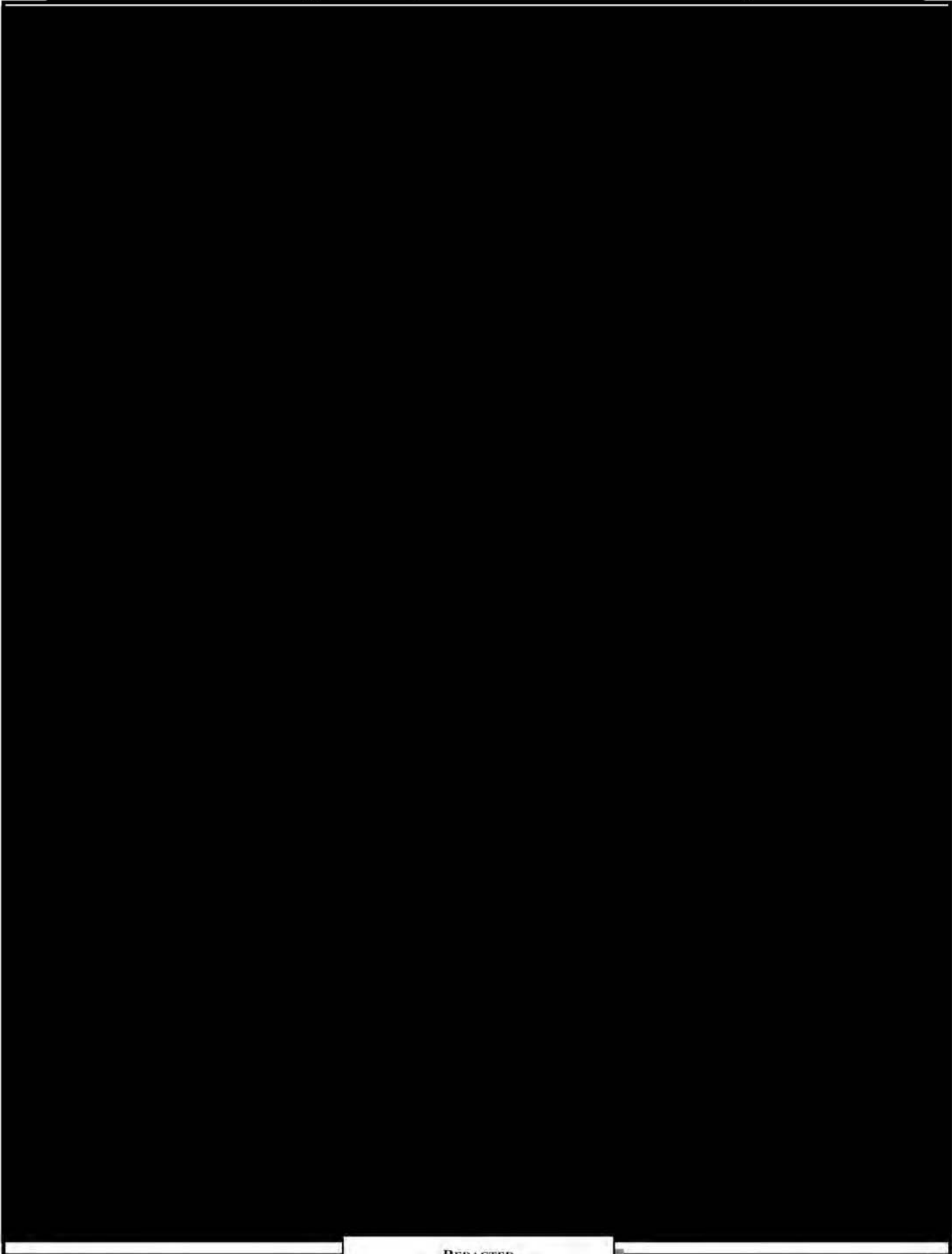




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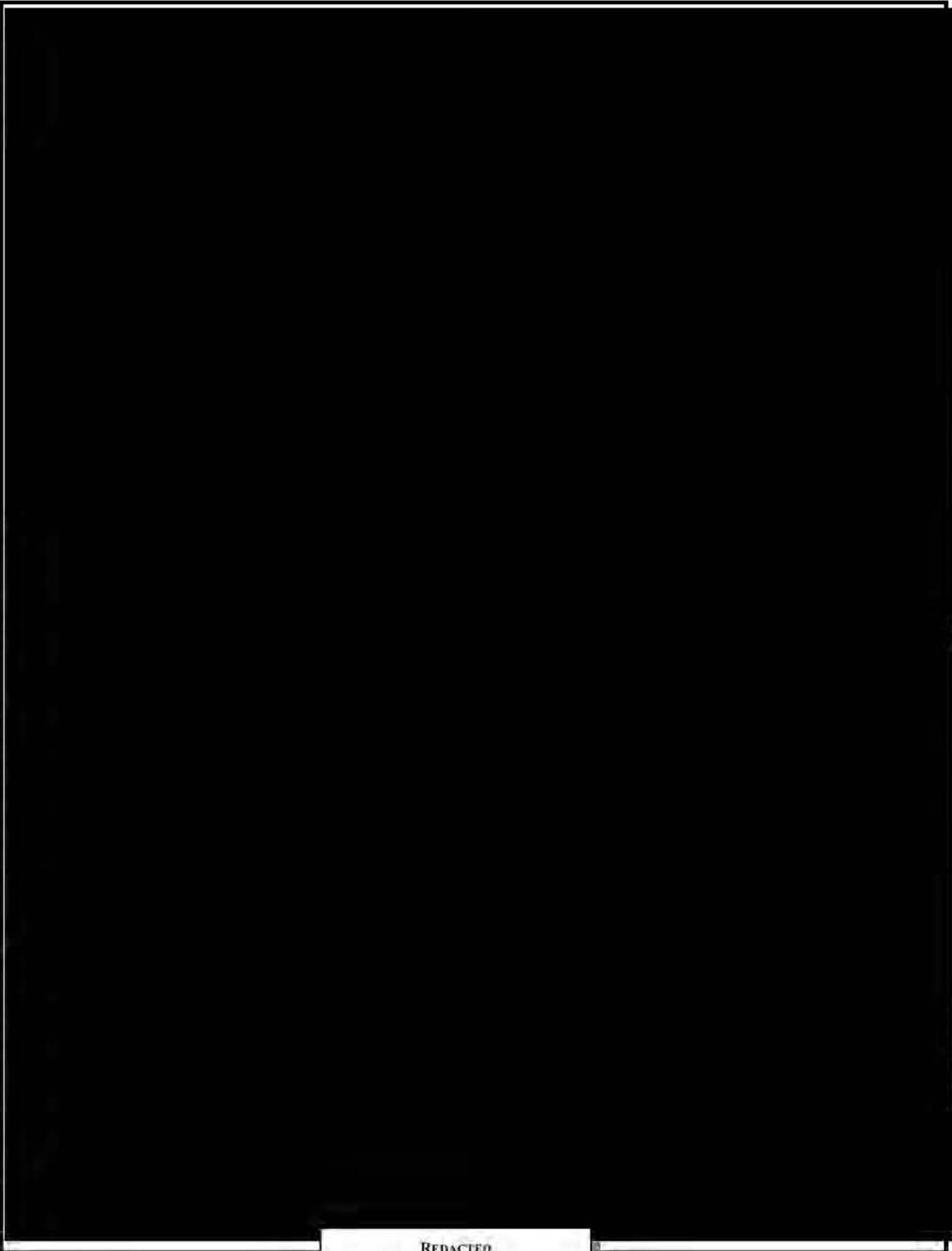
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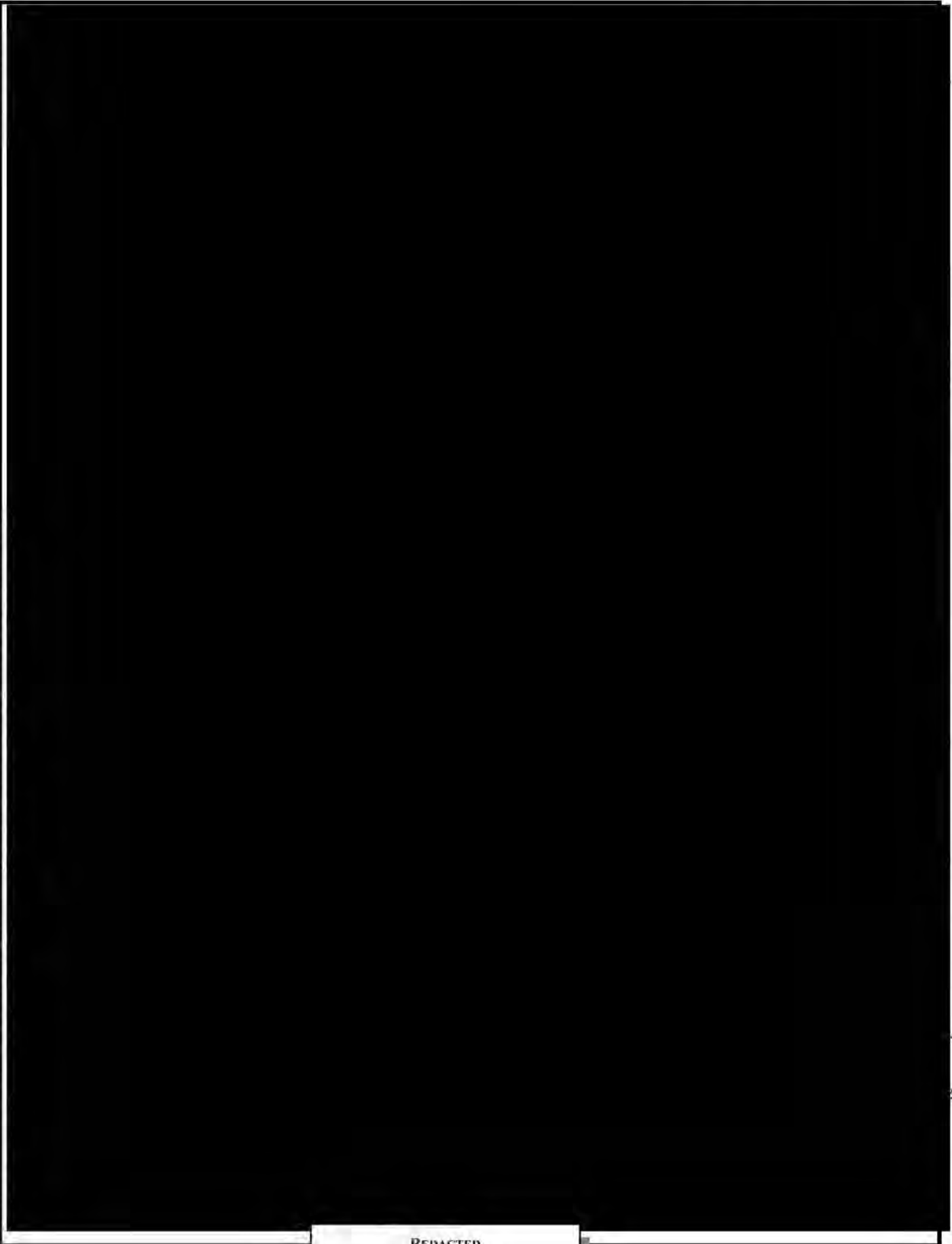
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Exhibit P-2

**Draft Burns & McDonnell Wind Resource Assessment,
March 2010**

DRAFT – REVISION 3

Wind Resource Assessment

Prepared For

Puget Sound Energy



March 2010

Project 53851

Task Number 2.1



Wind Resource Assessment

prepared for

**Puget Sound Energy
Bellevue, Washington**

March 2010

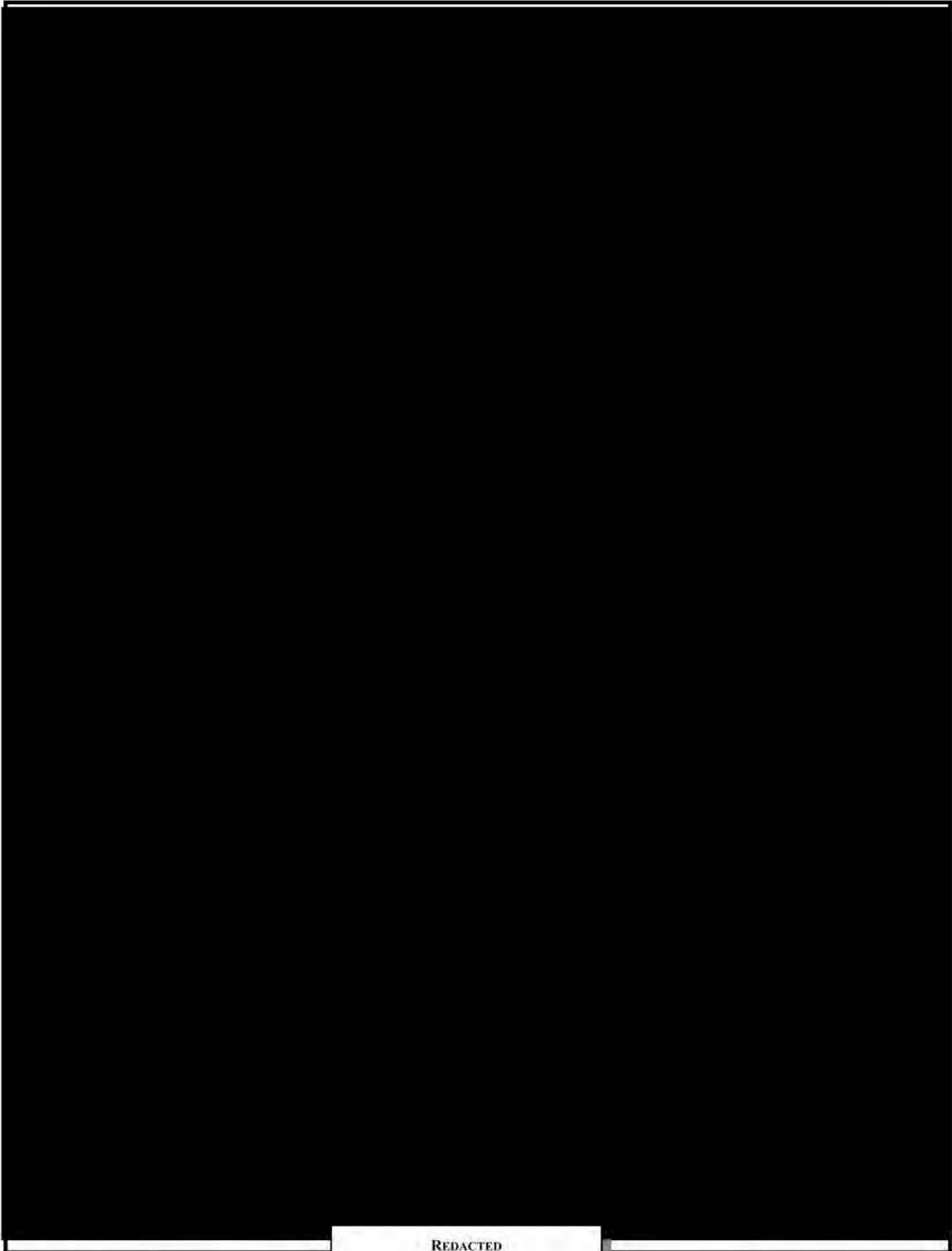
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Task Number 2.1

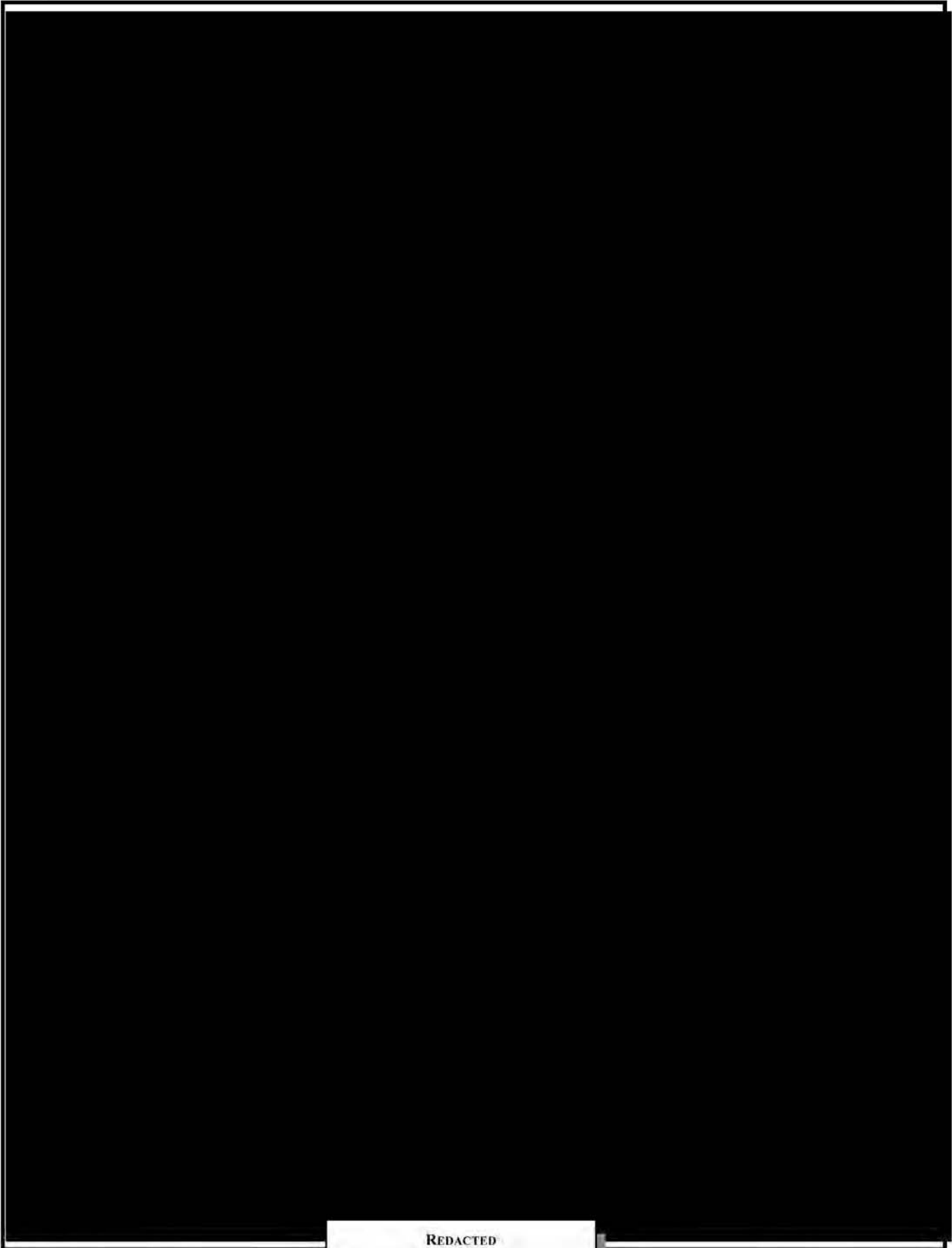
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**Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri**

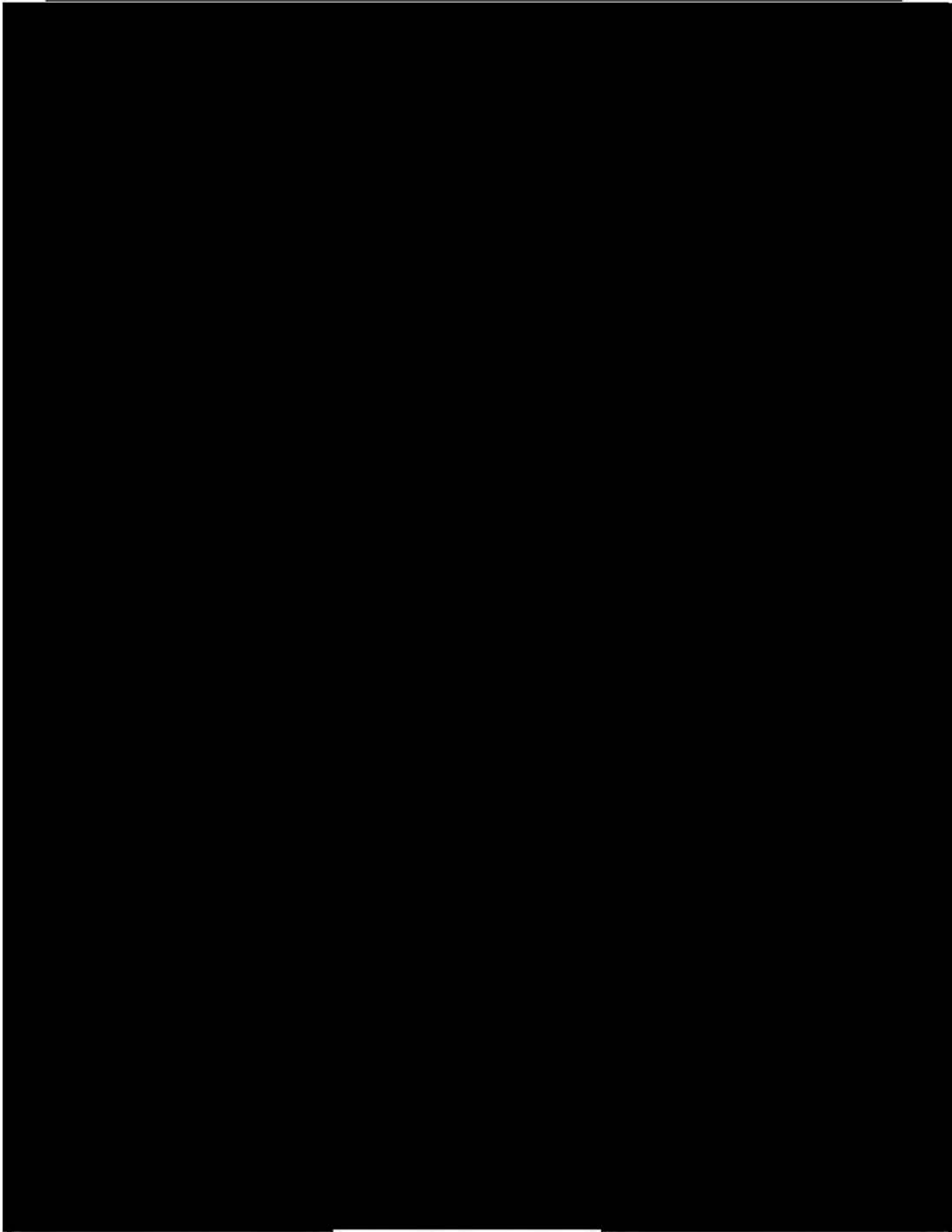
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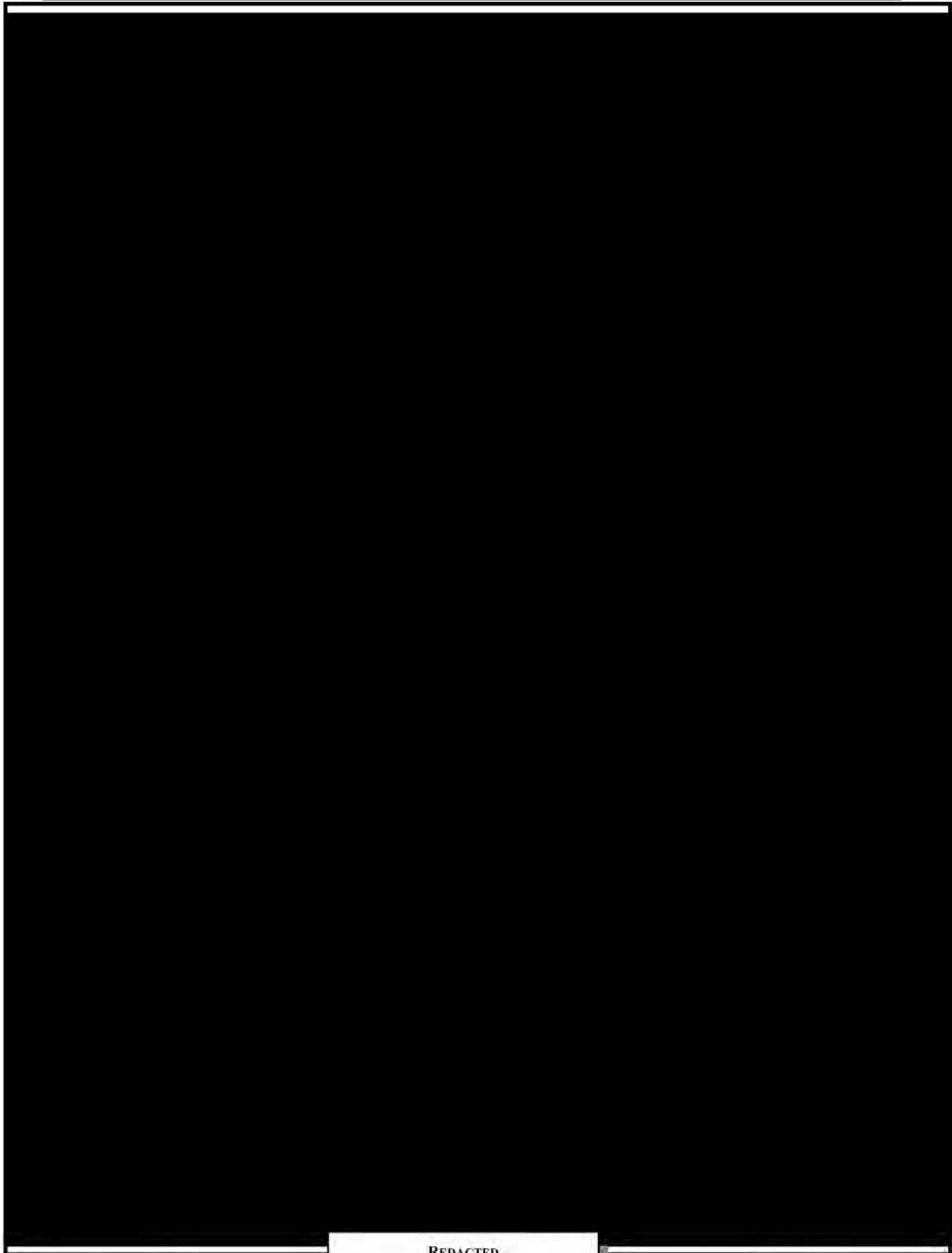
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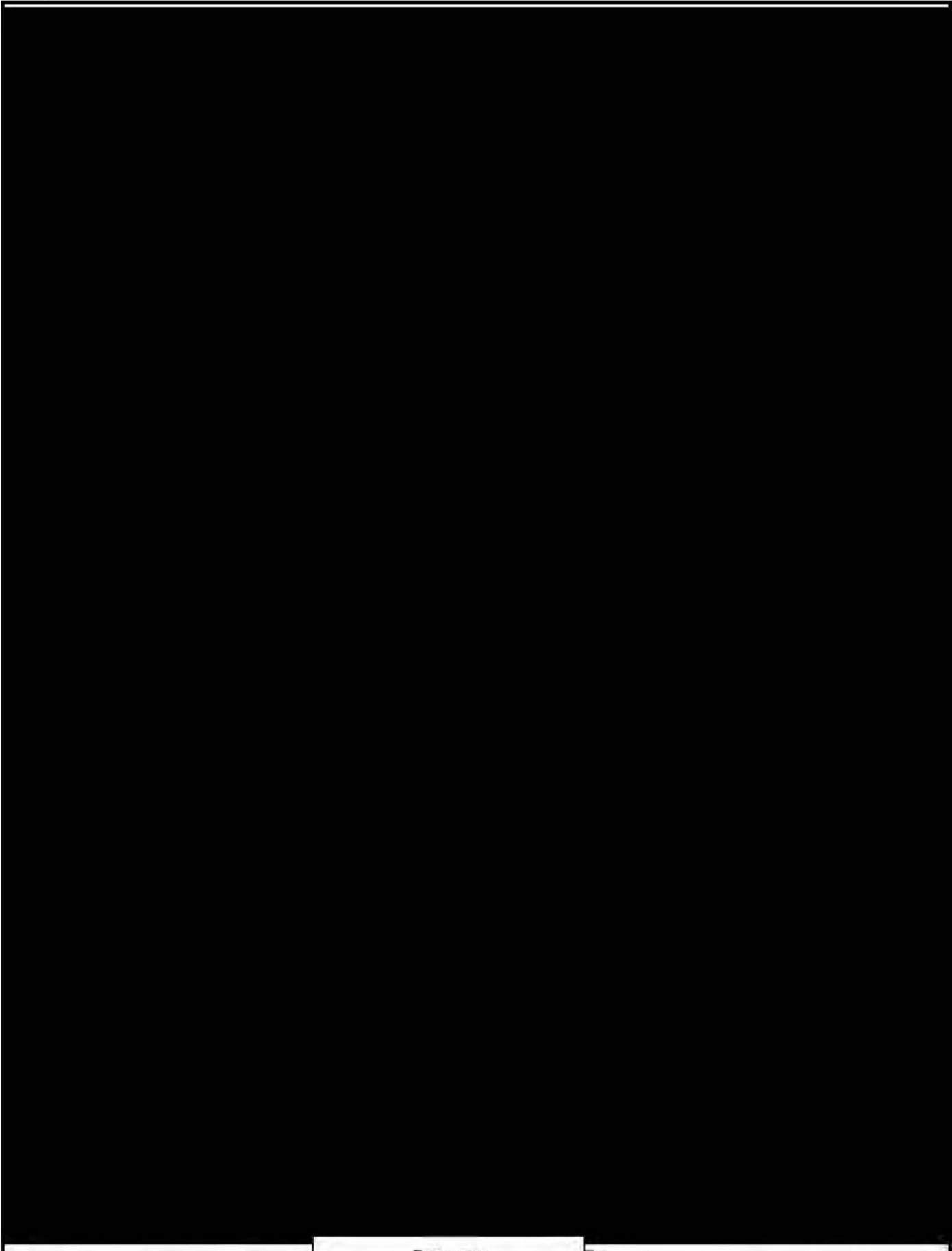
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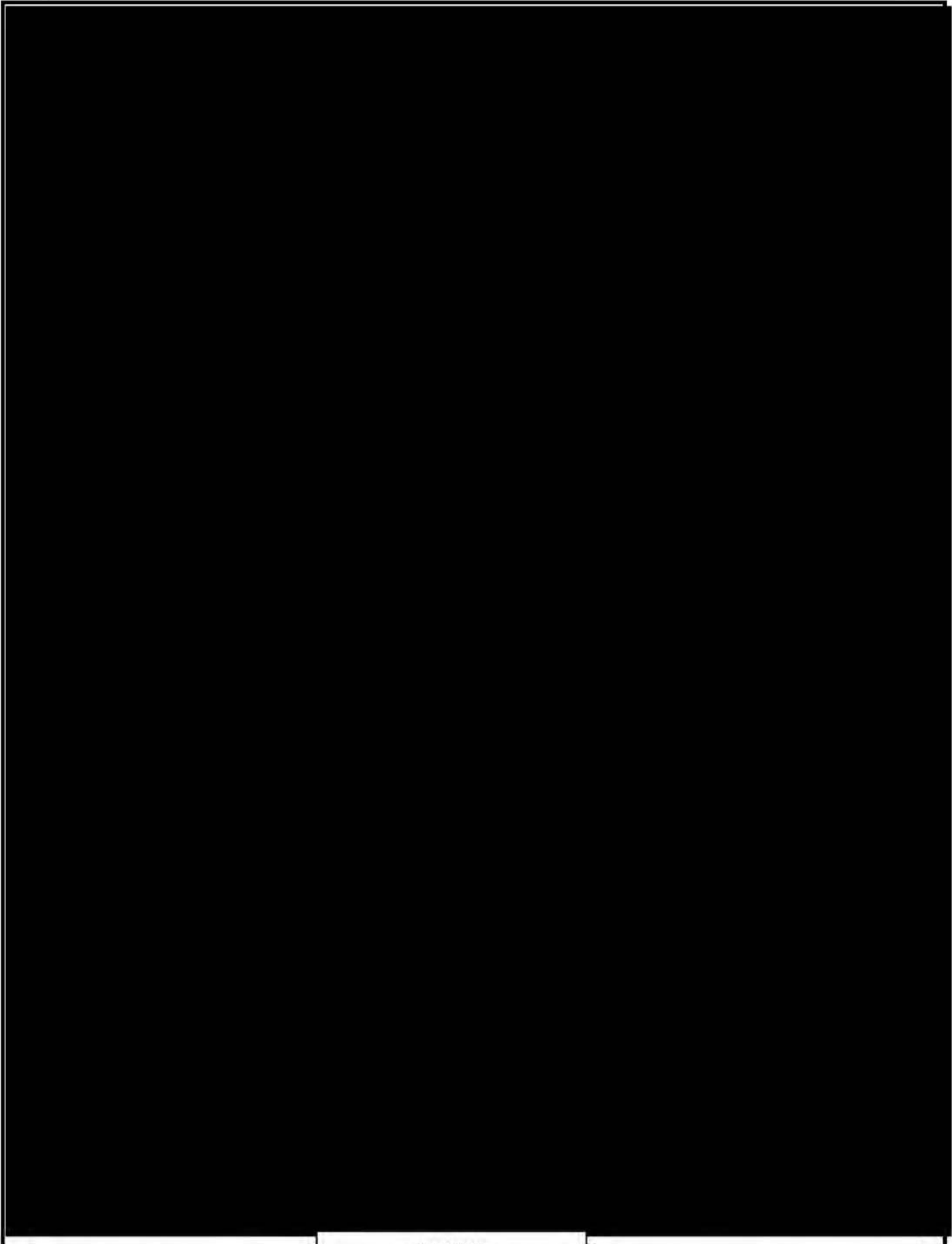


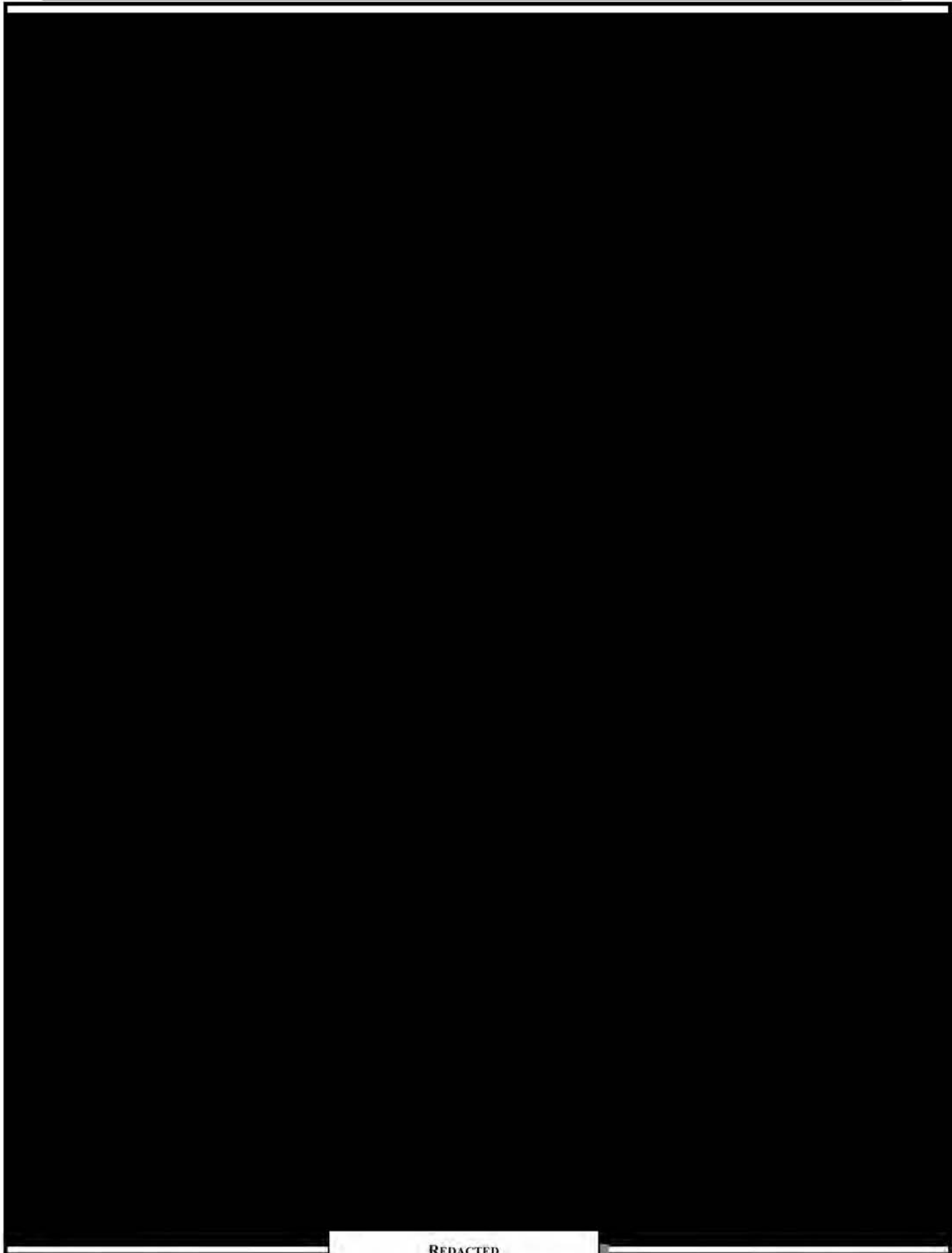
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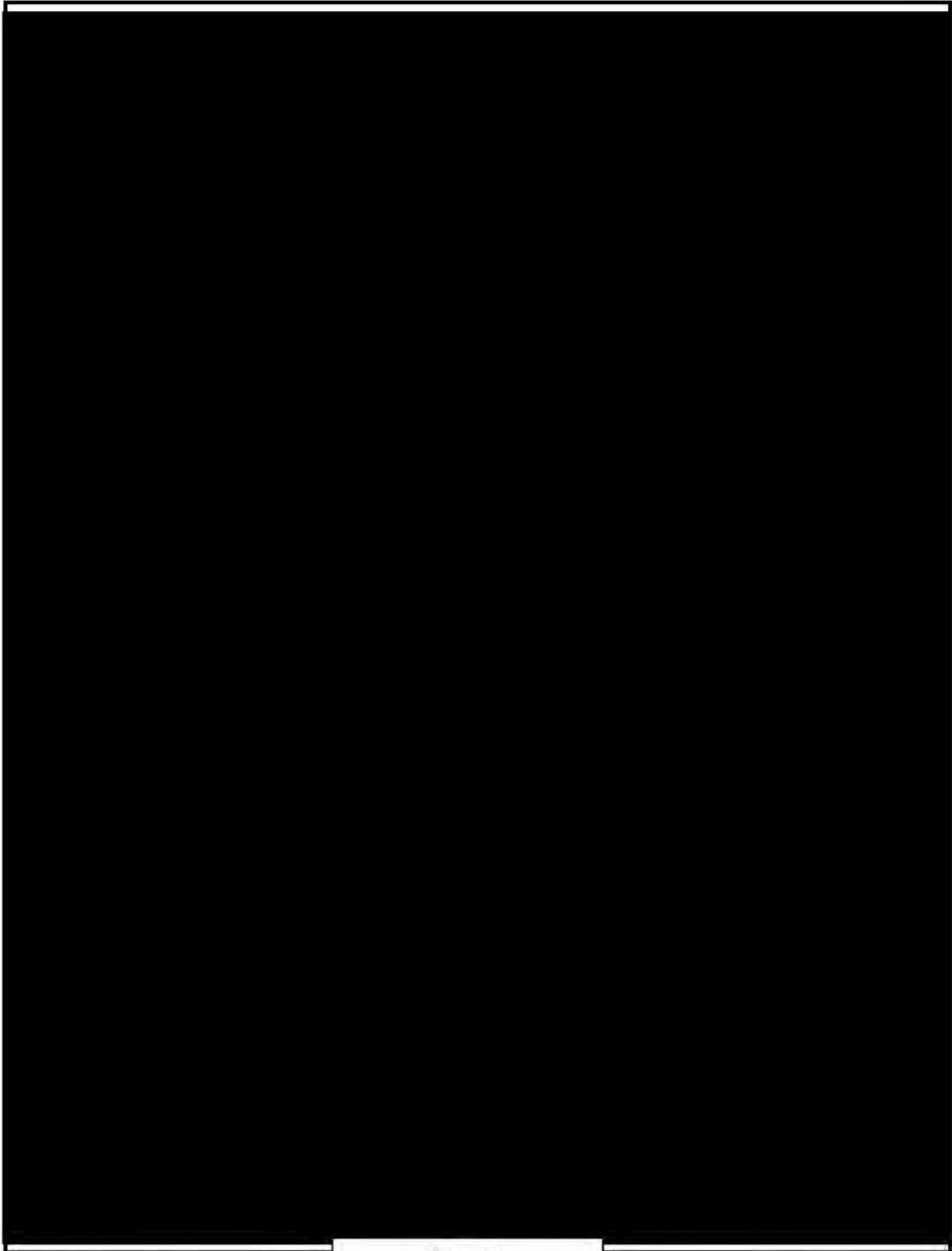
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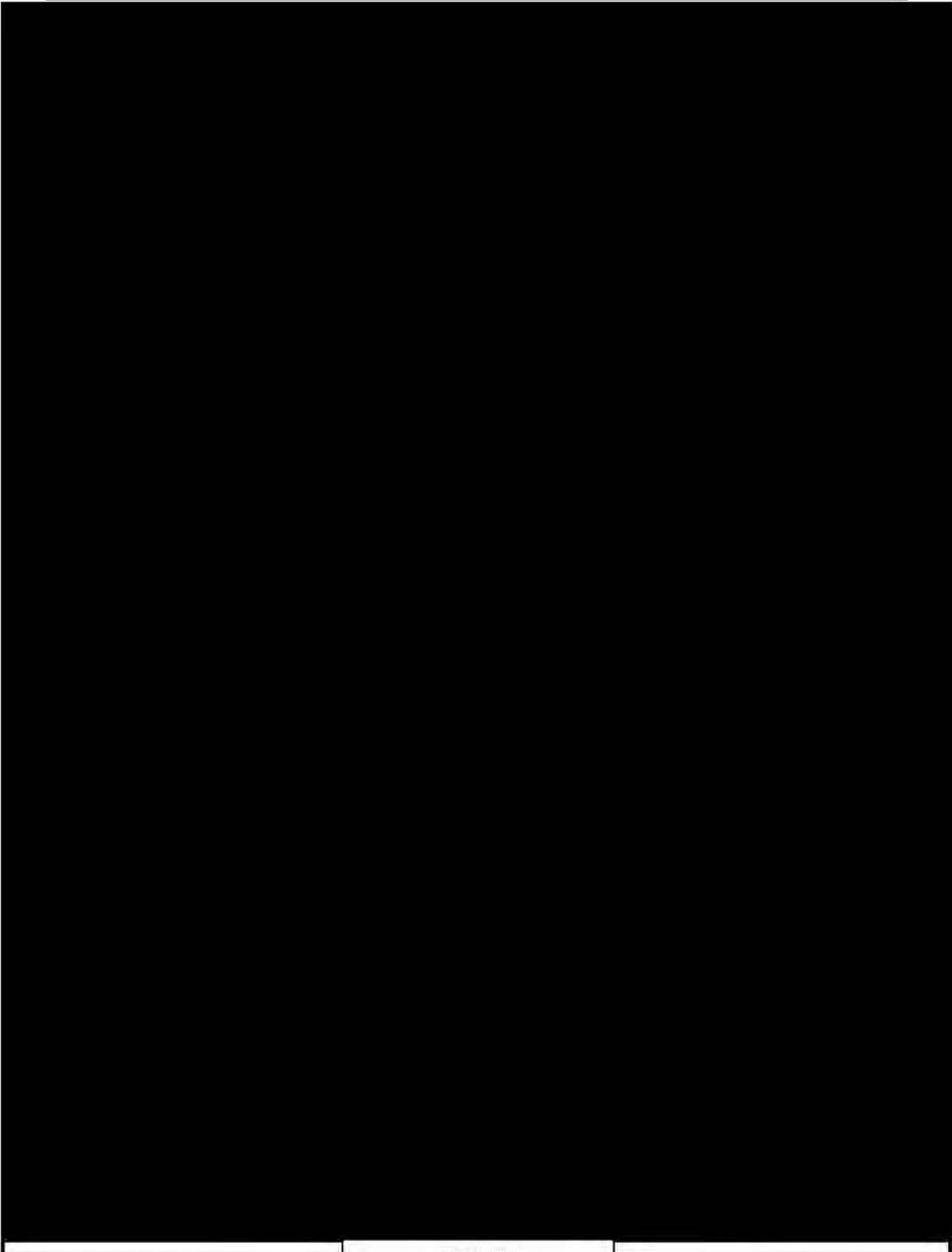






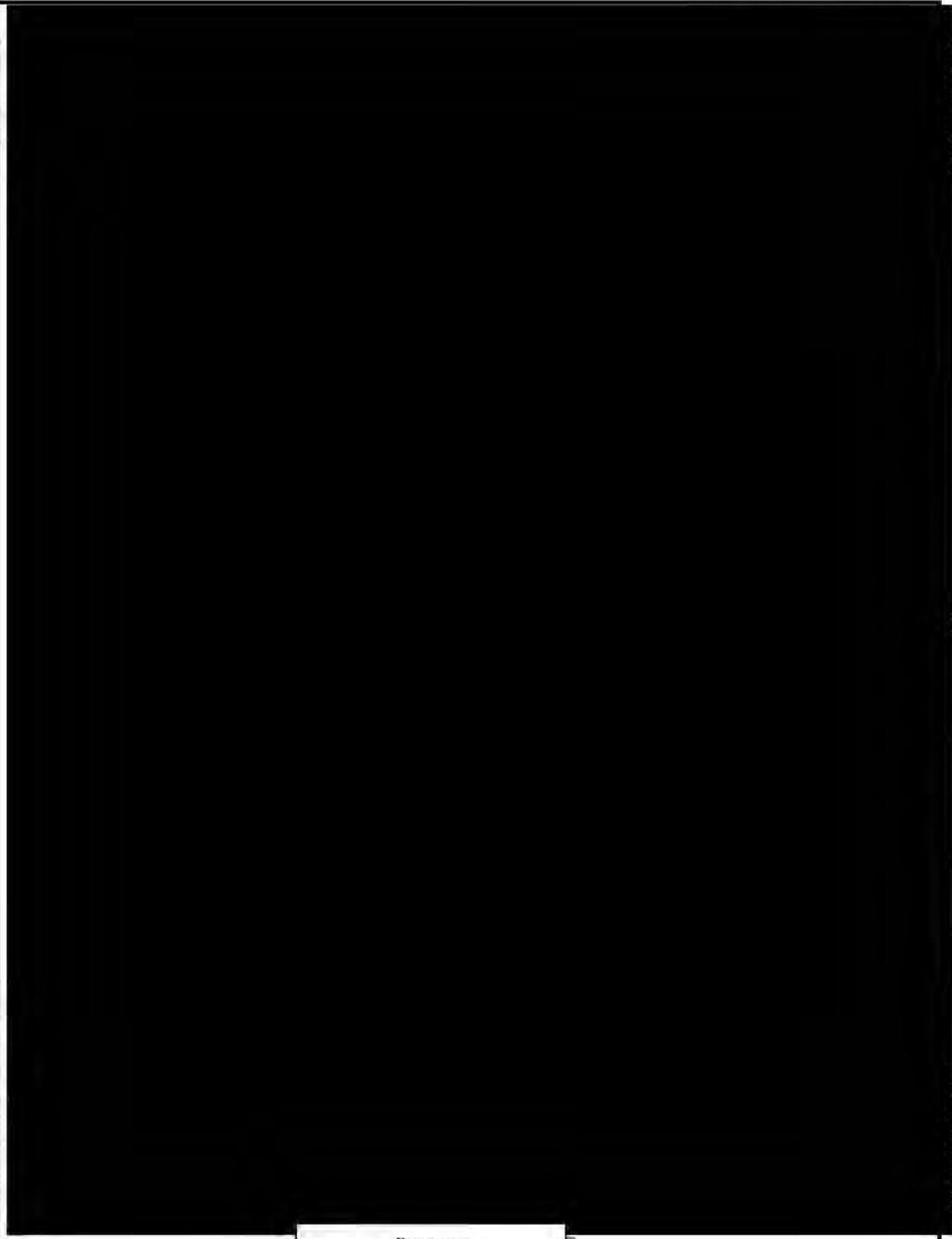
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Executive Summary

Wind Resource Assessment

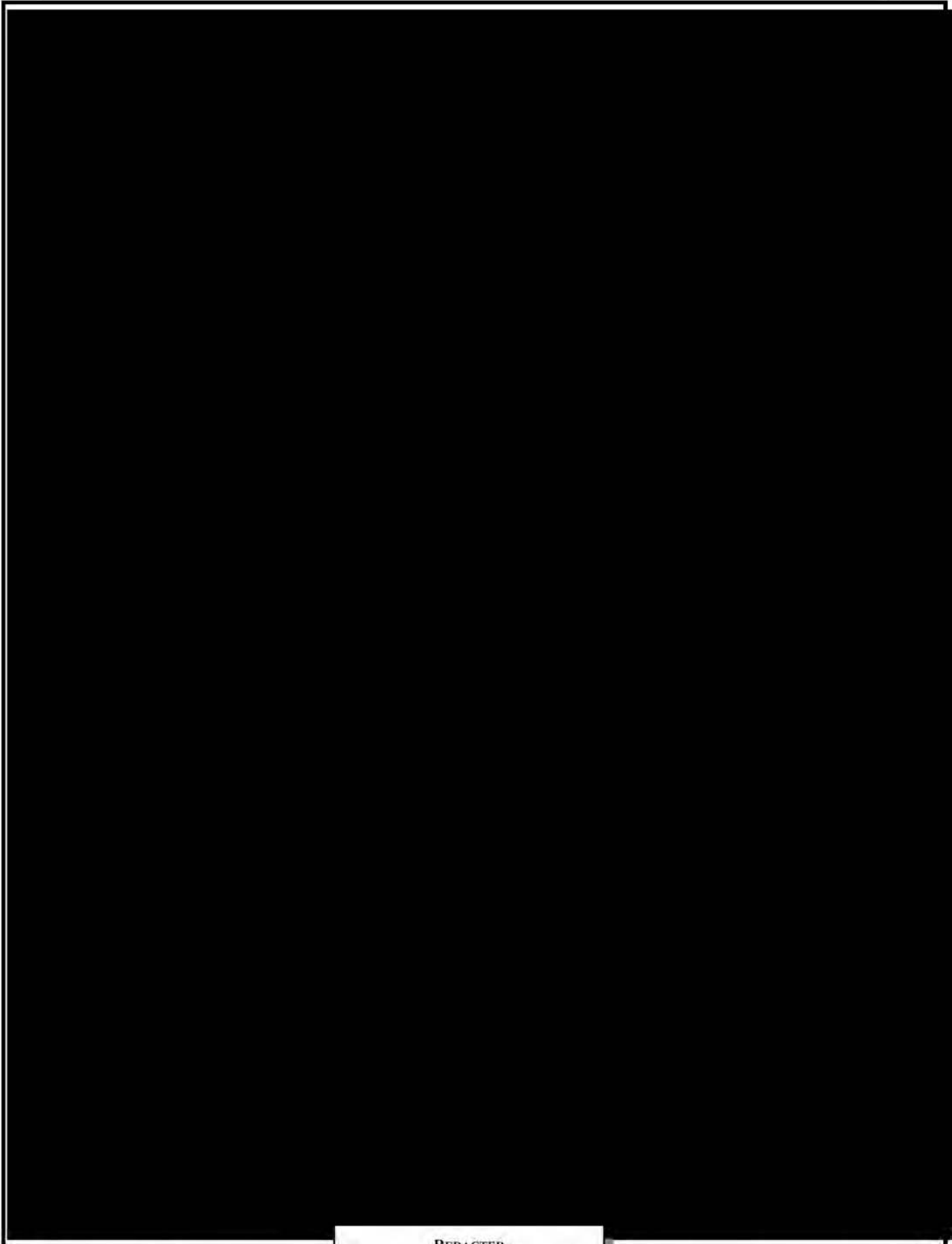


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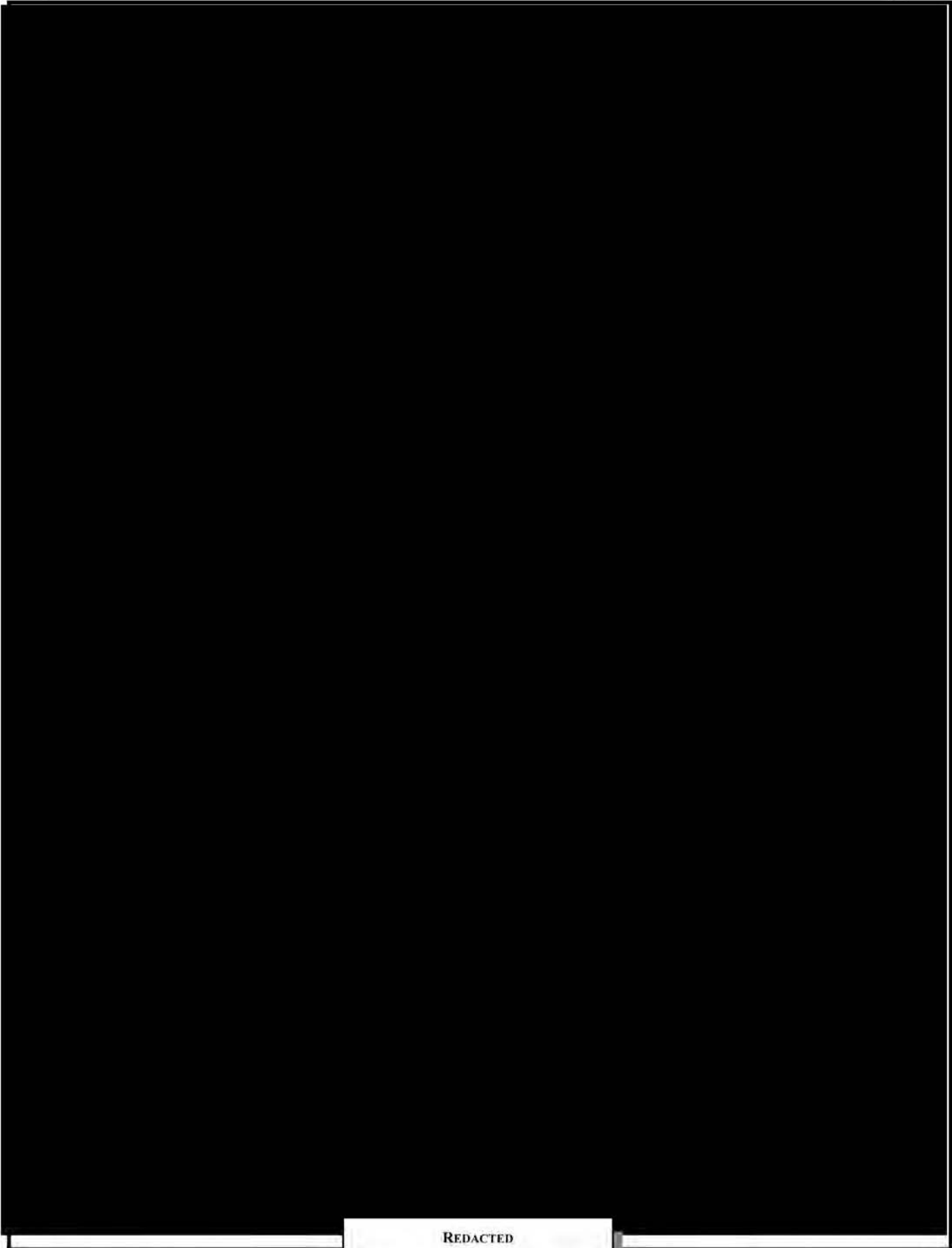
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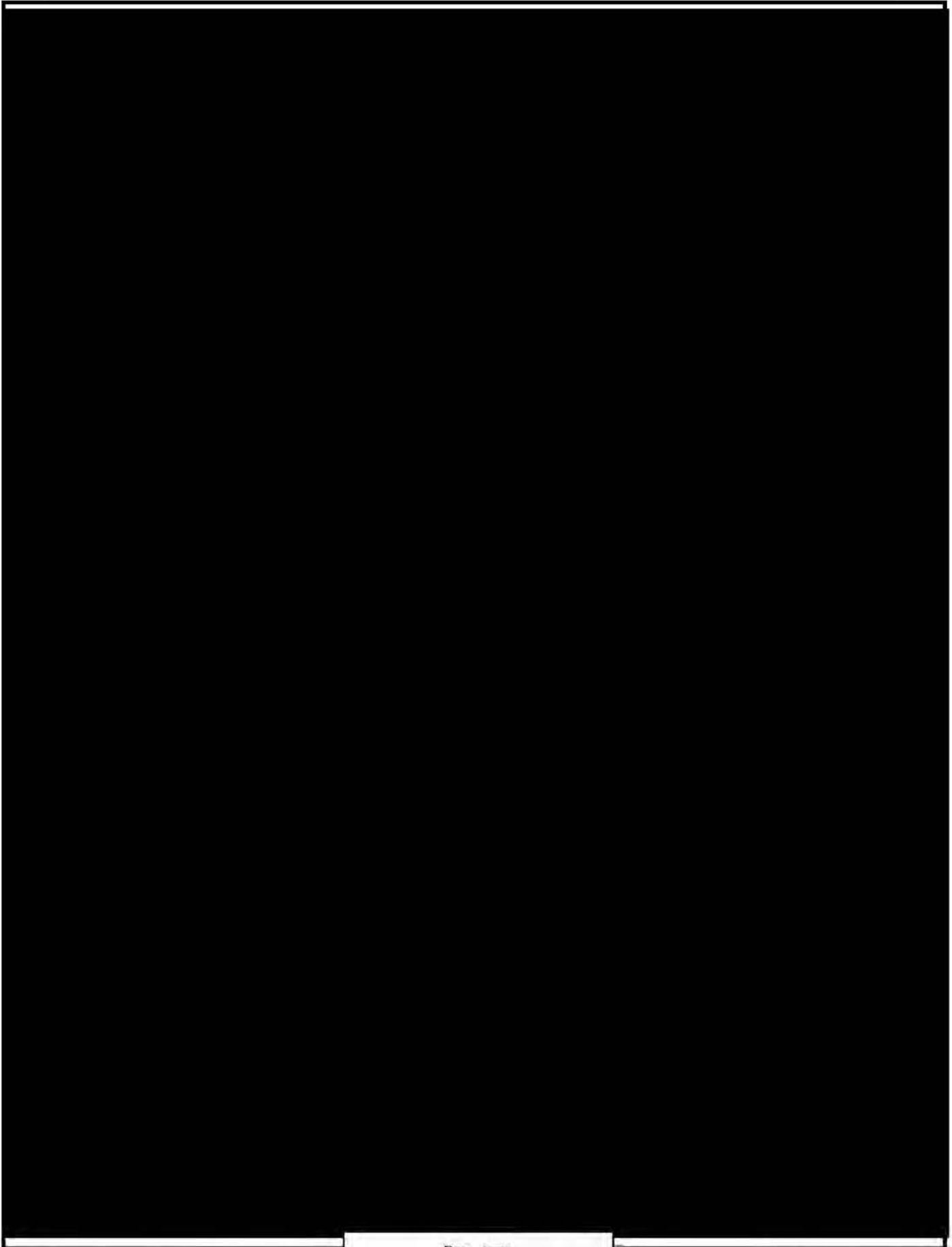
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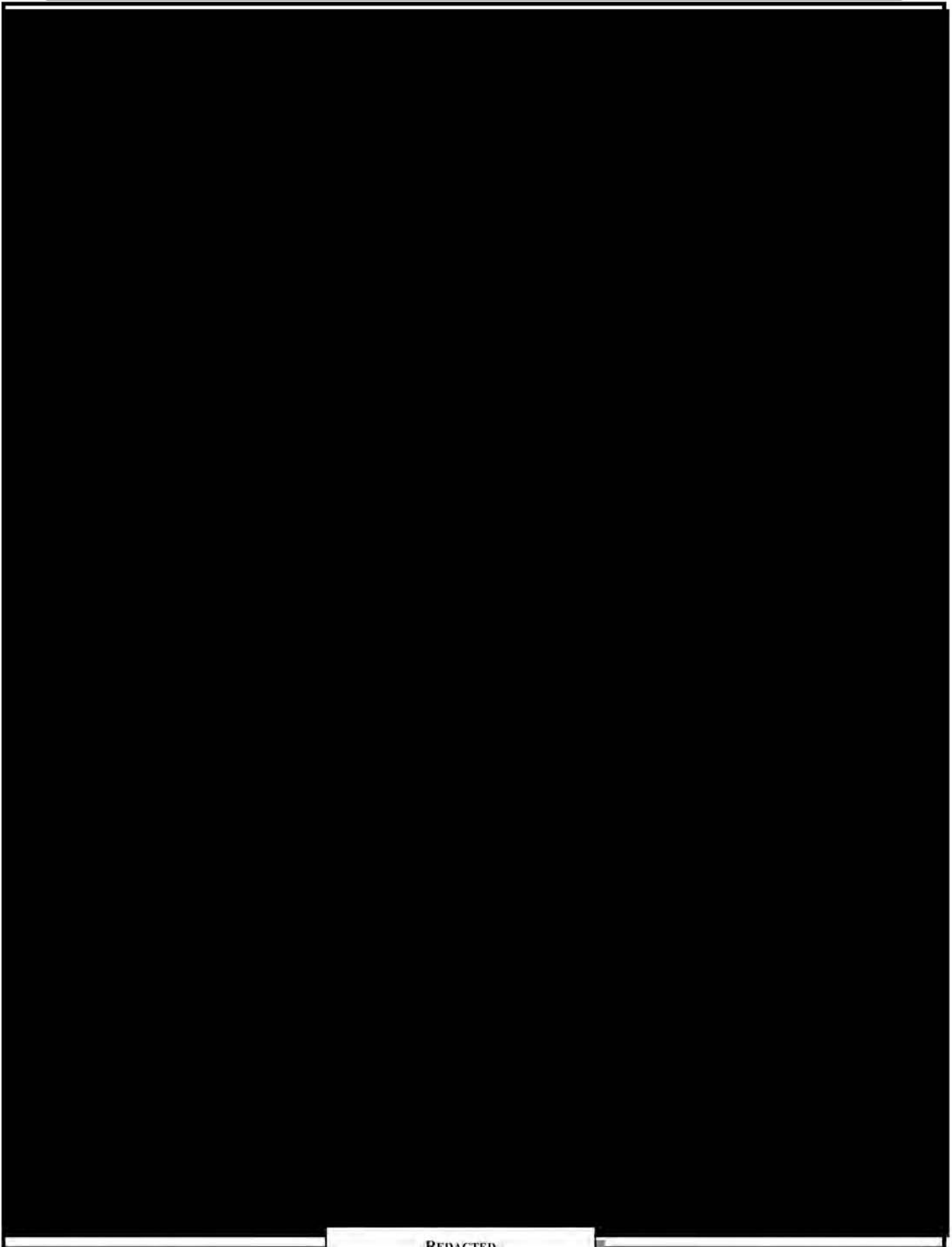


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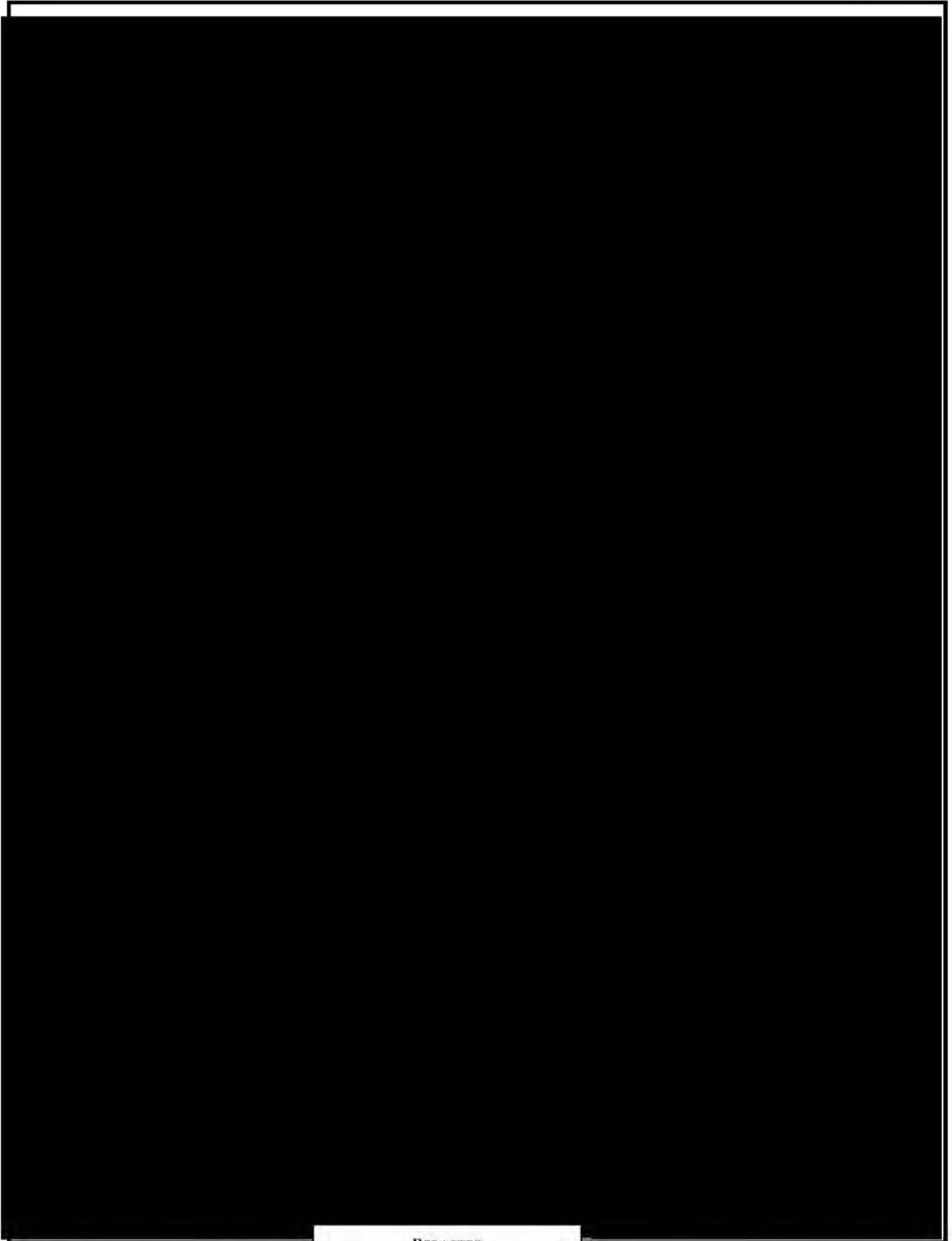


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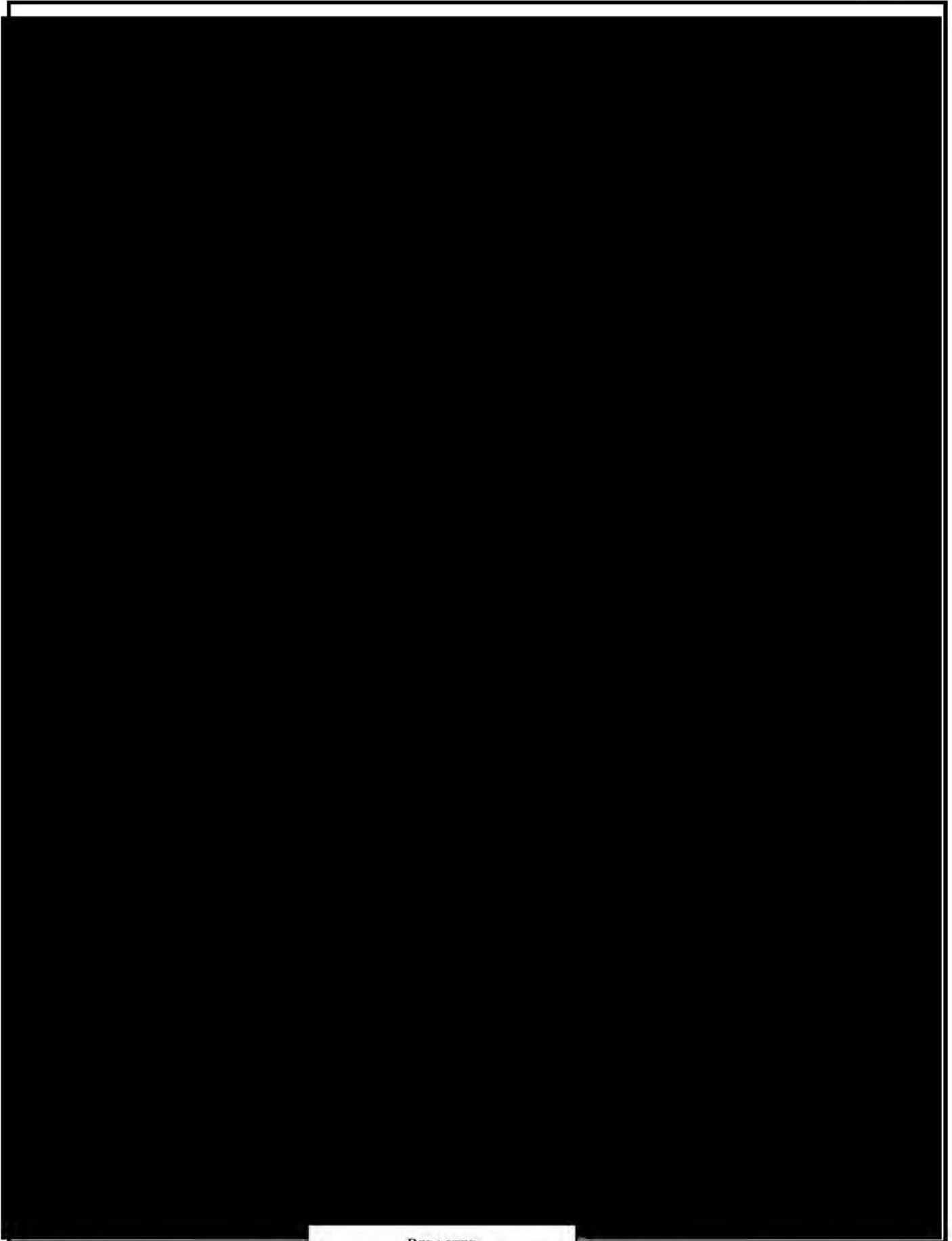




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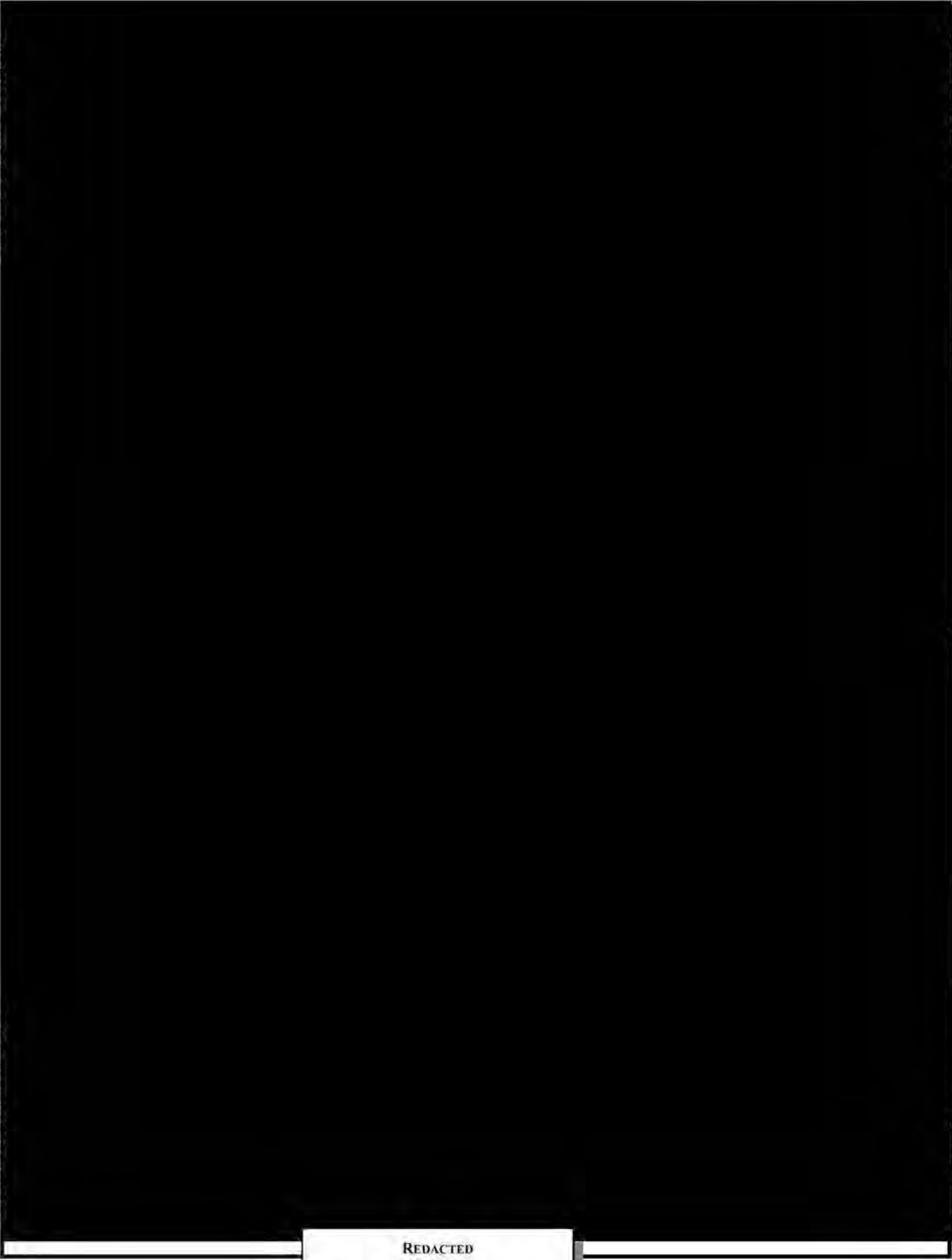
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WindFarm Model Description

Wind Resource Assessment

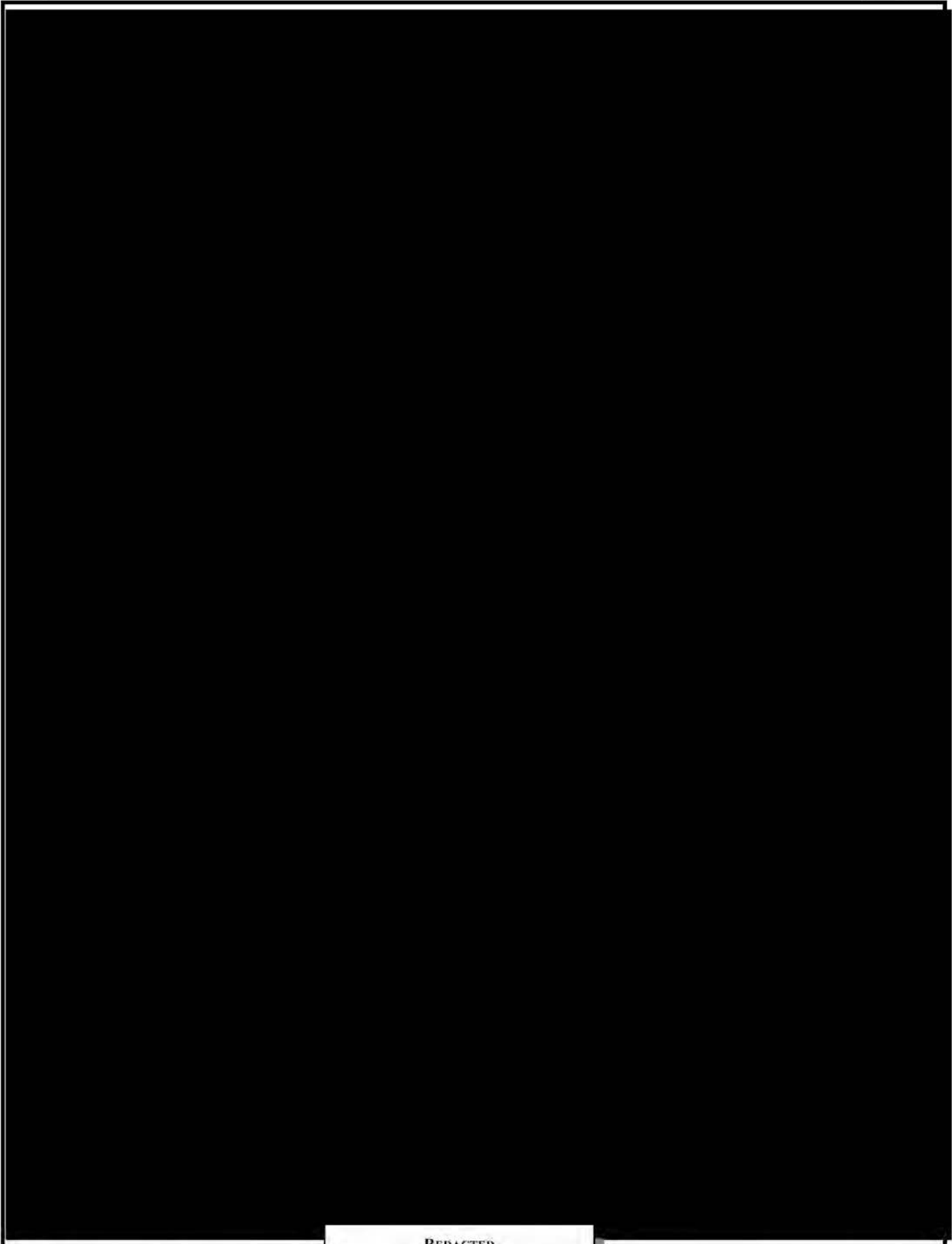


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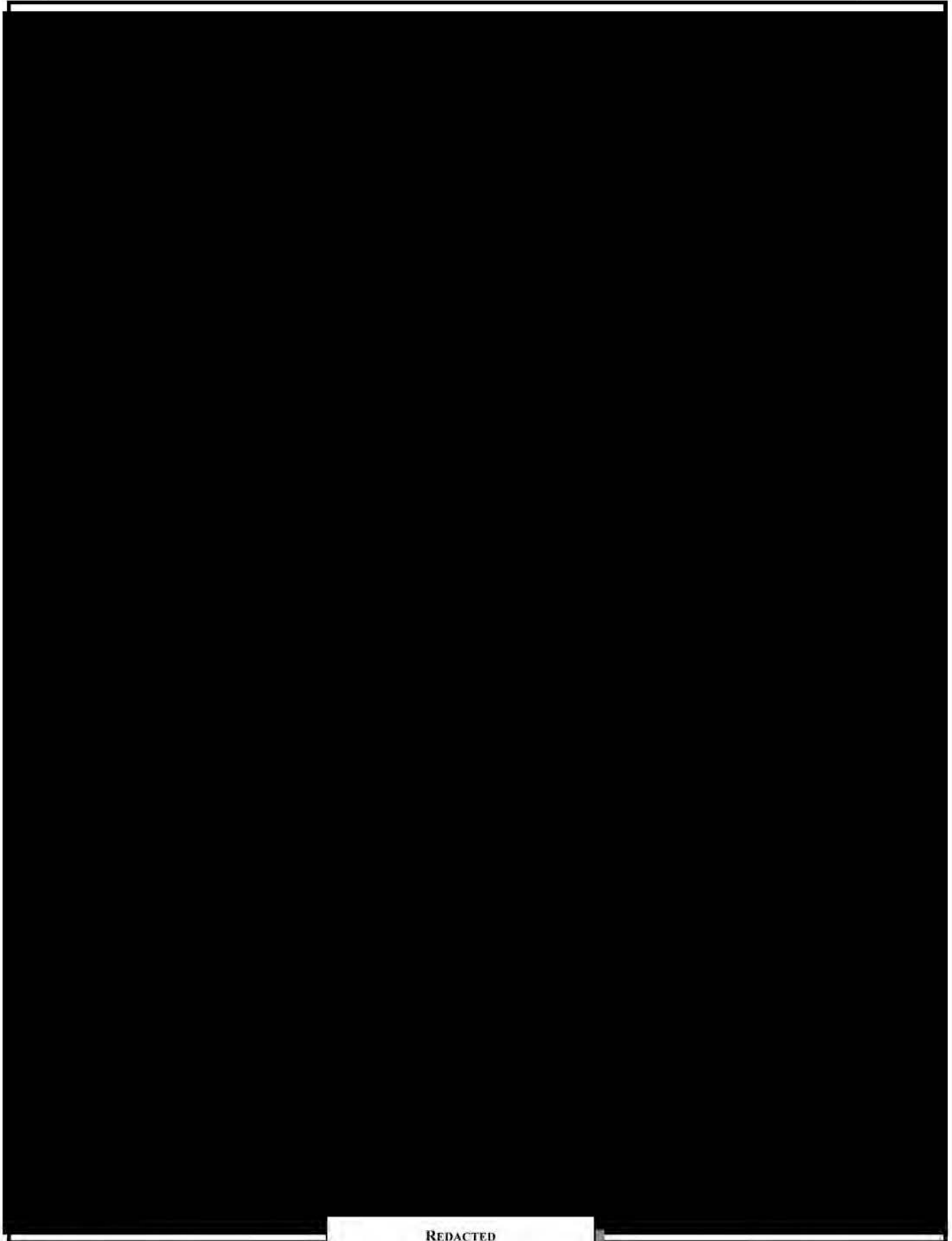
Burns & McDannell

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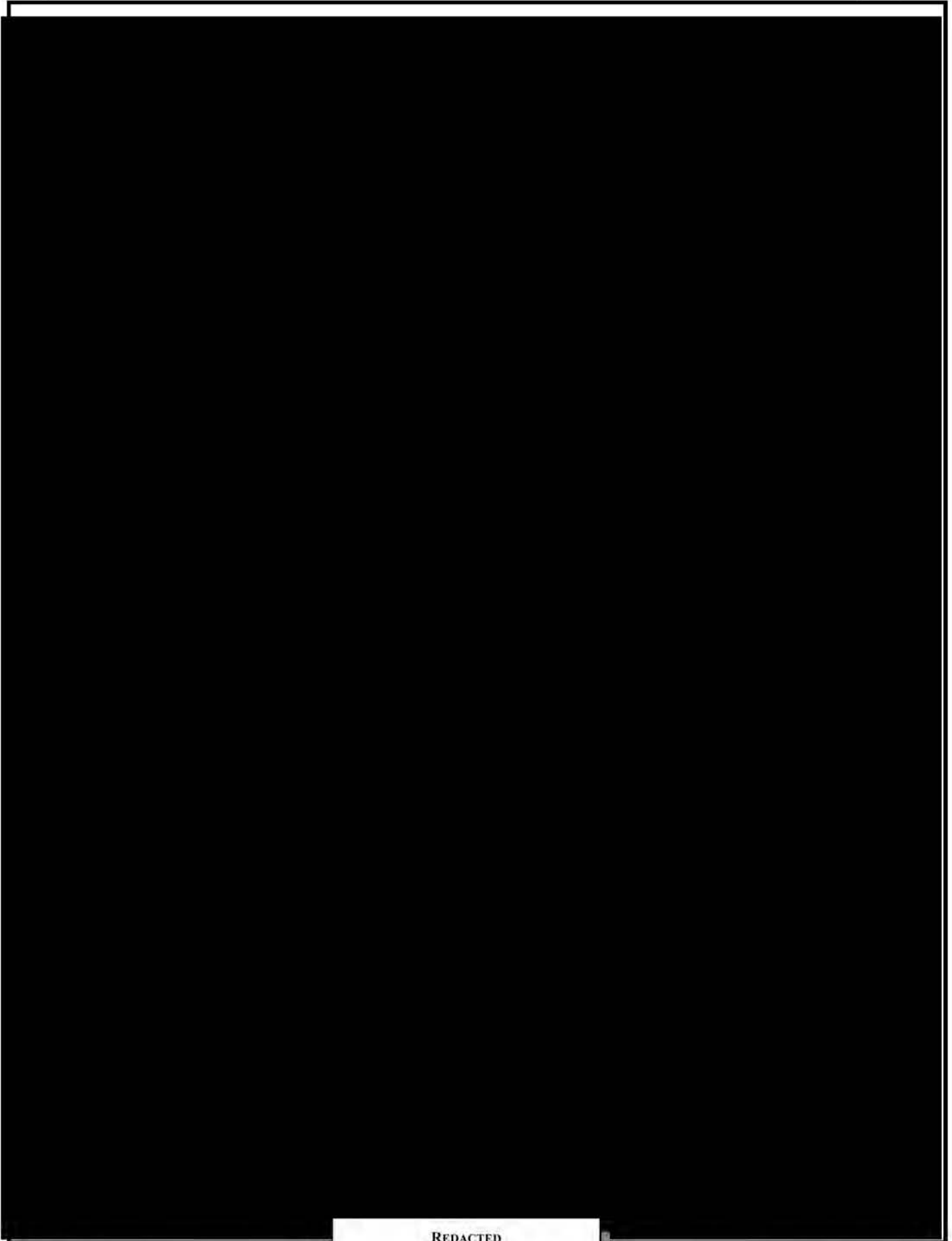
Puget Sound Energy



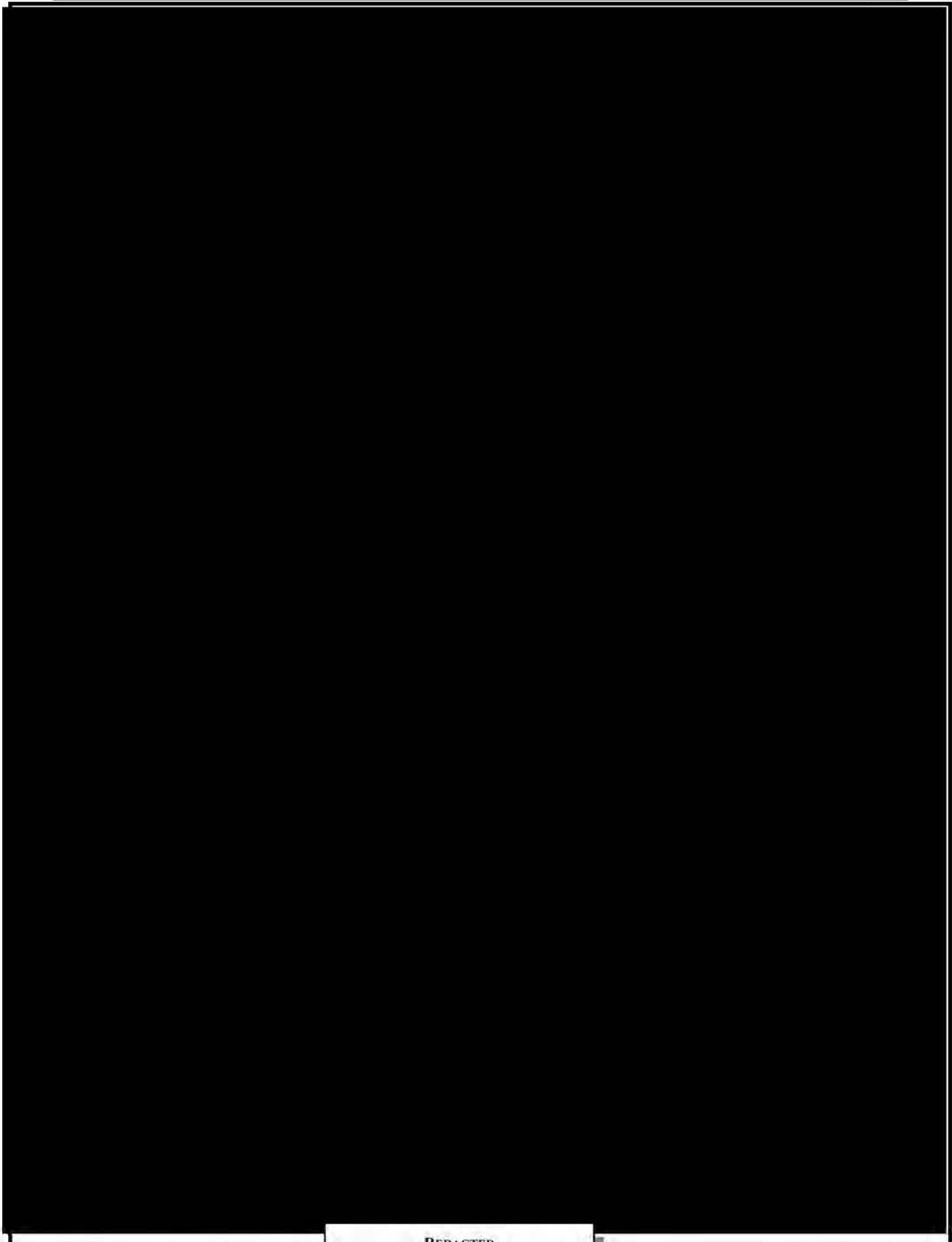
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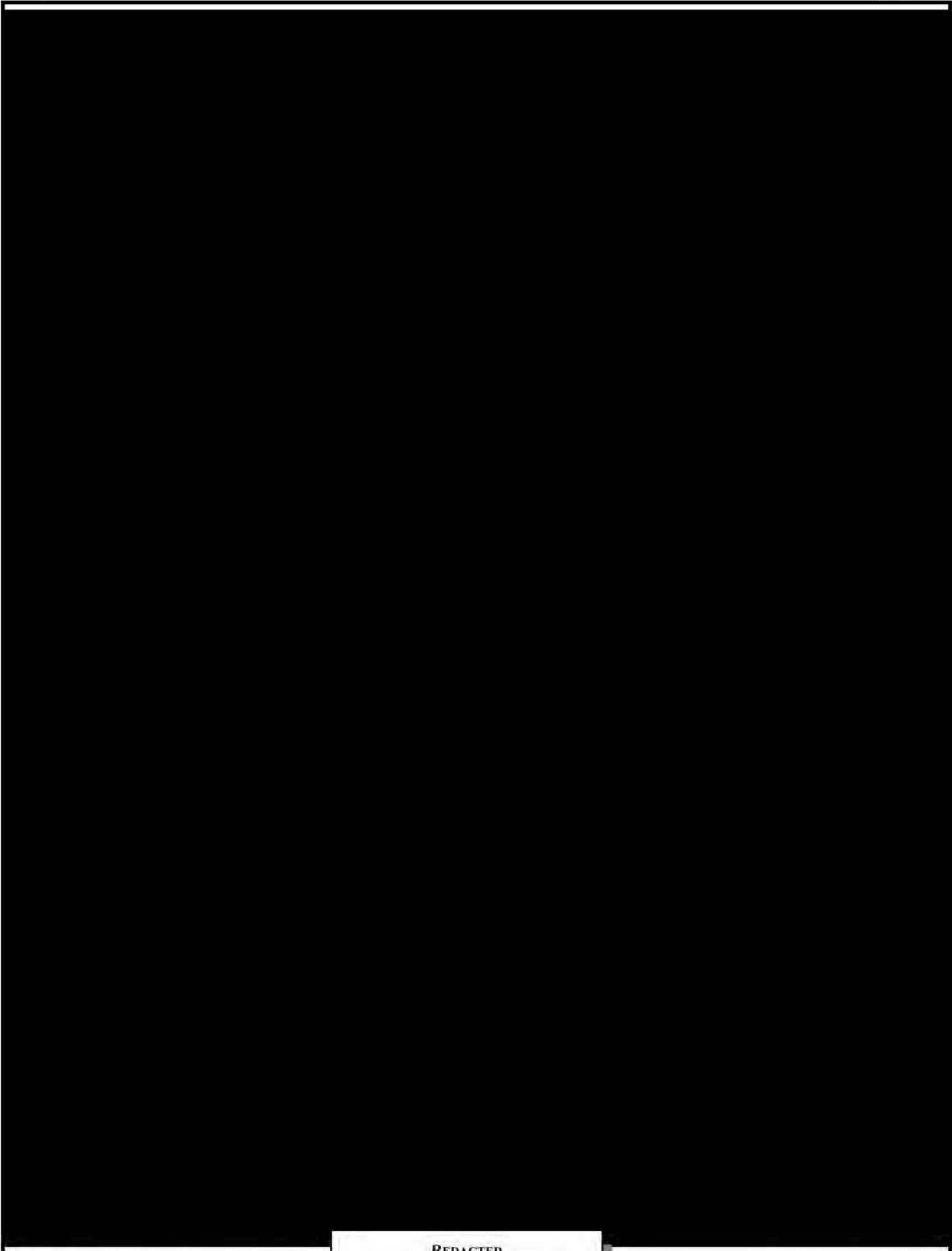
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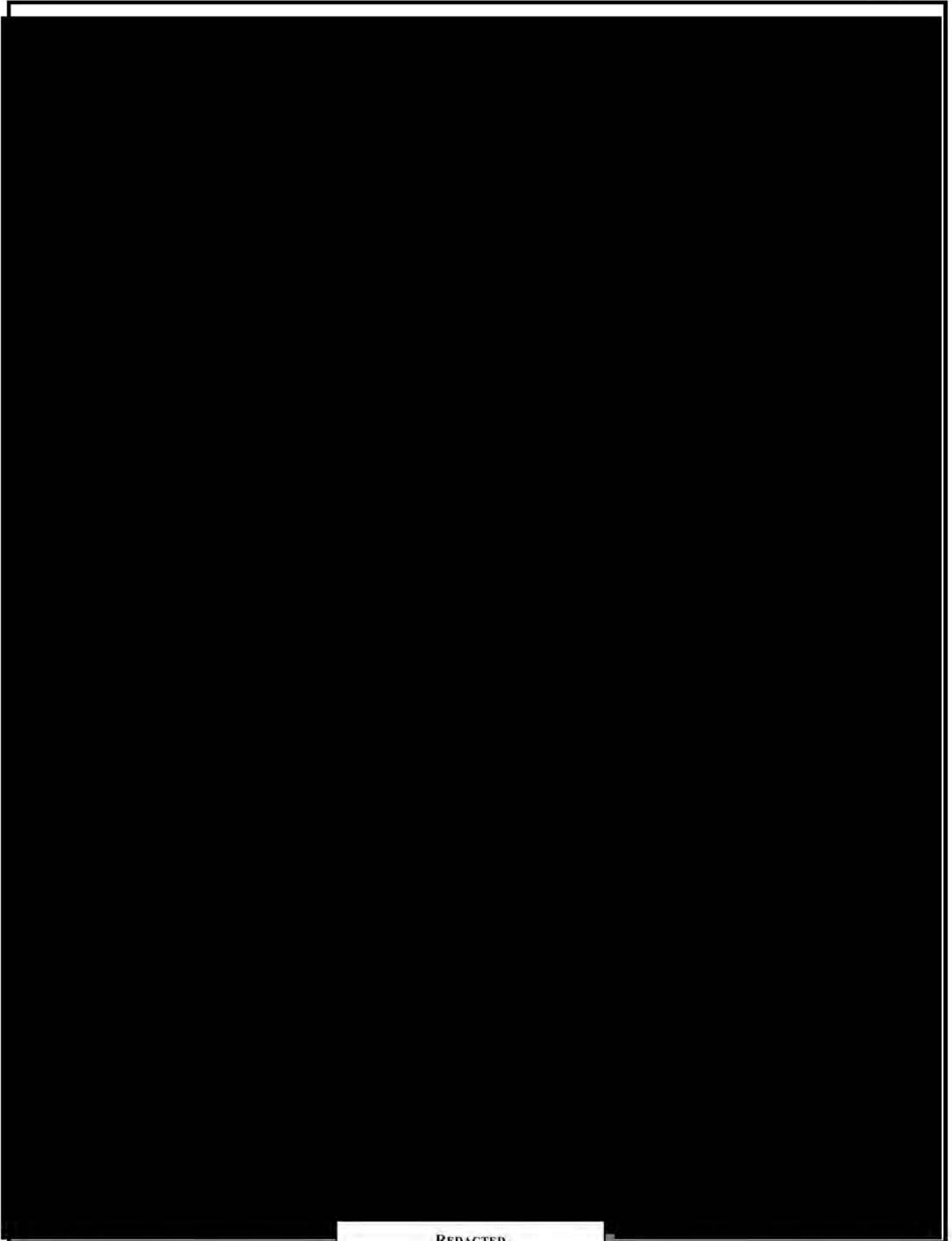
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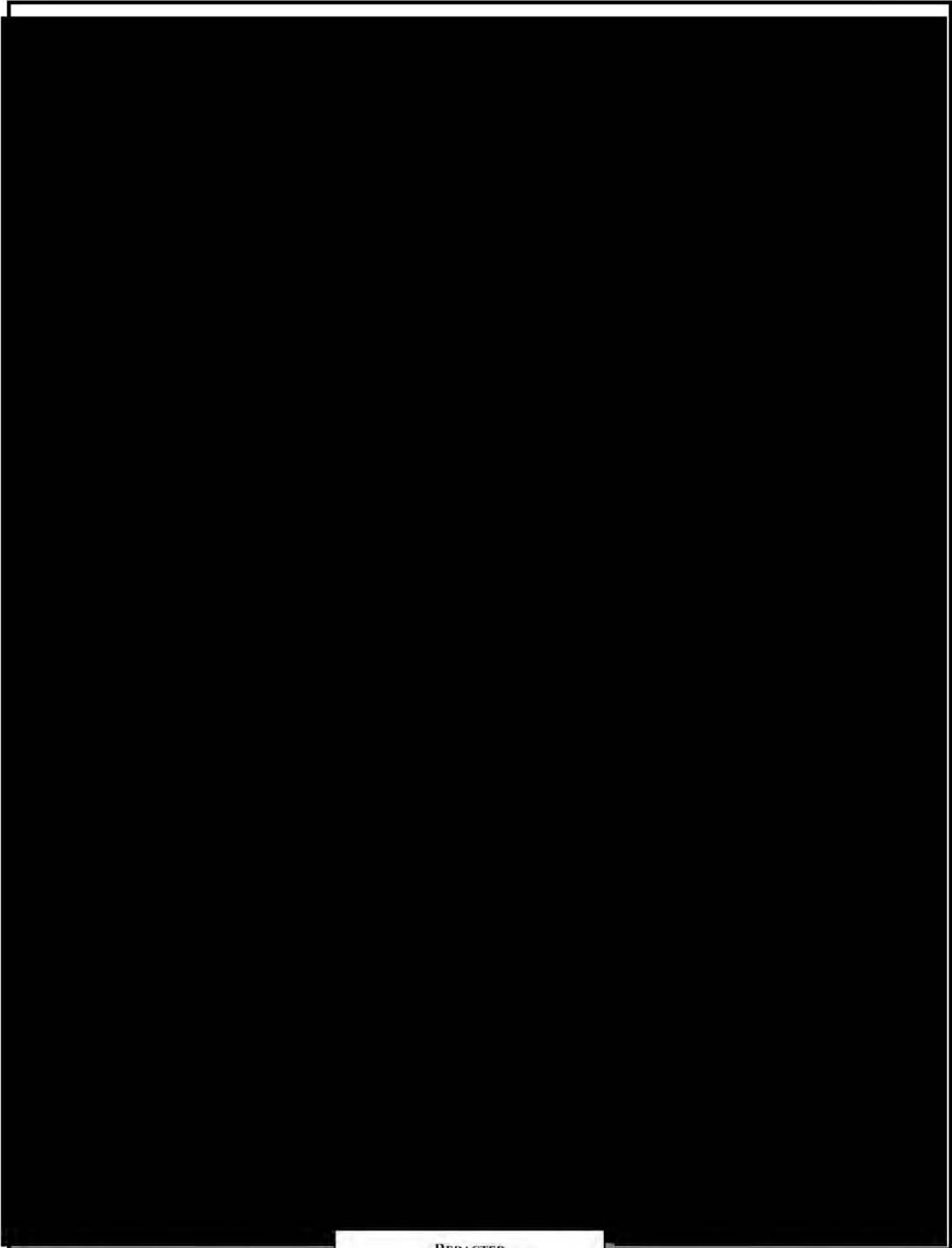
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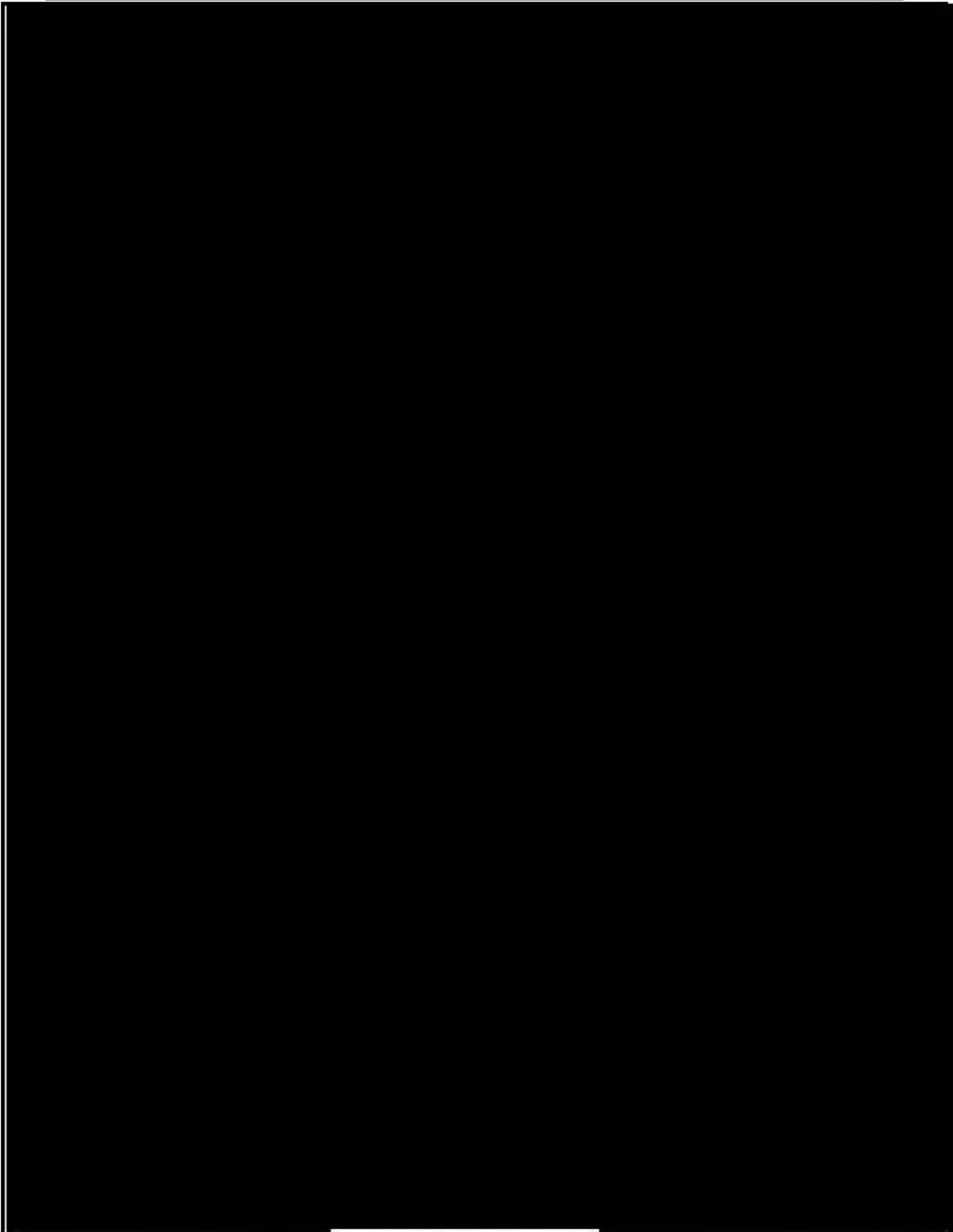
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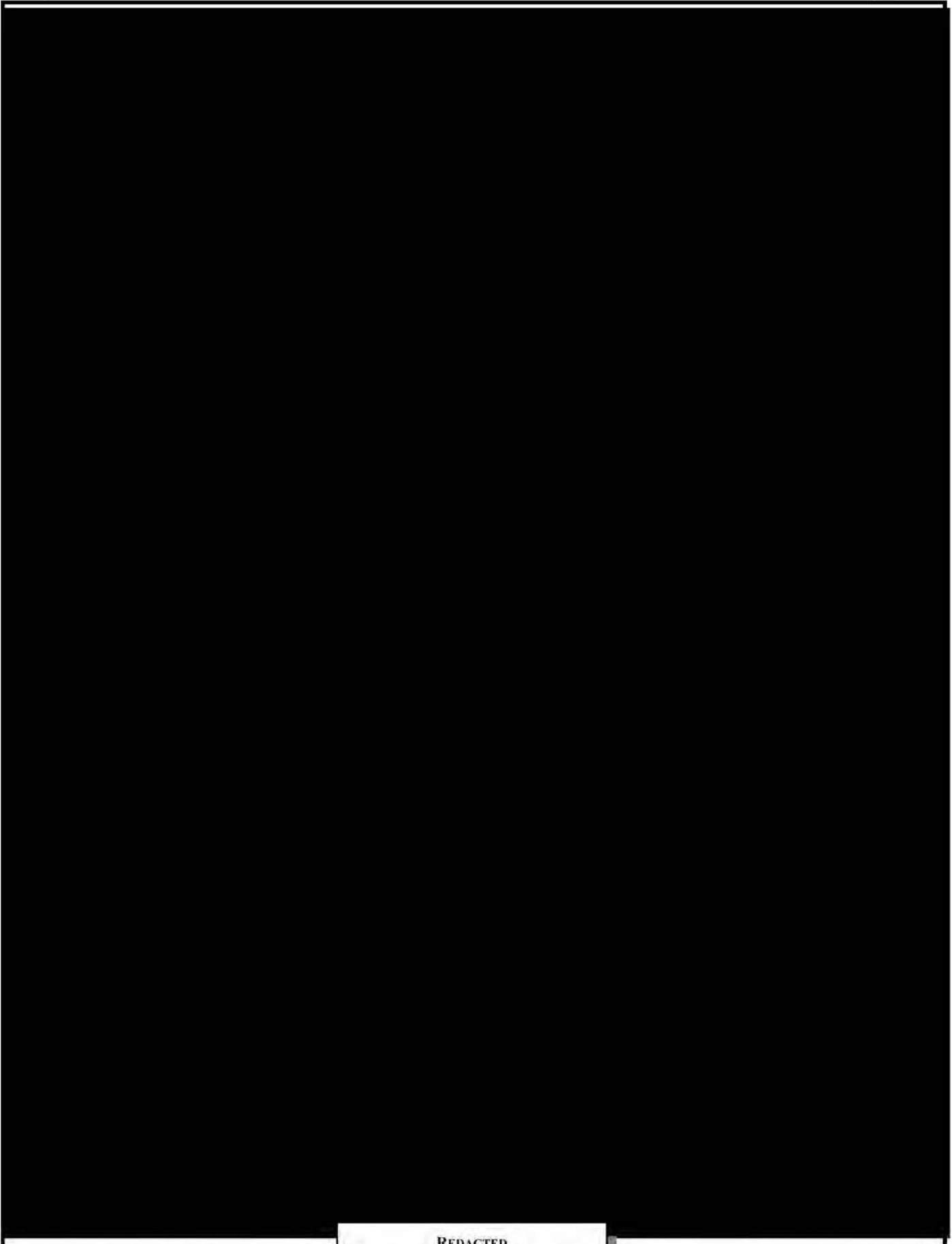
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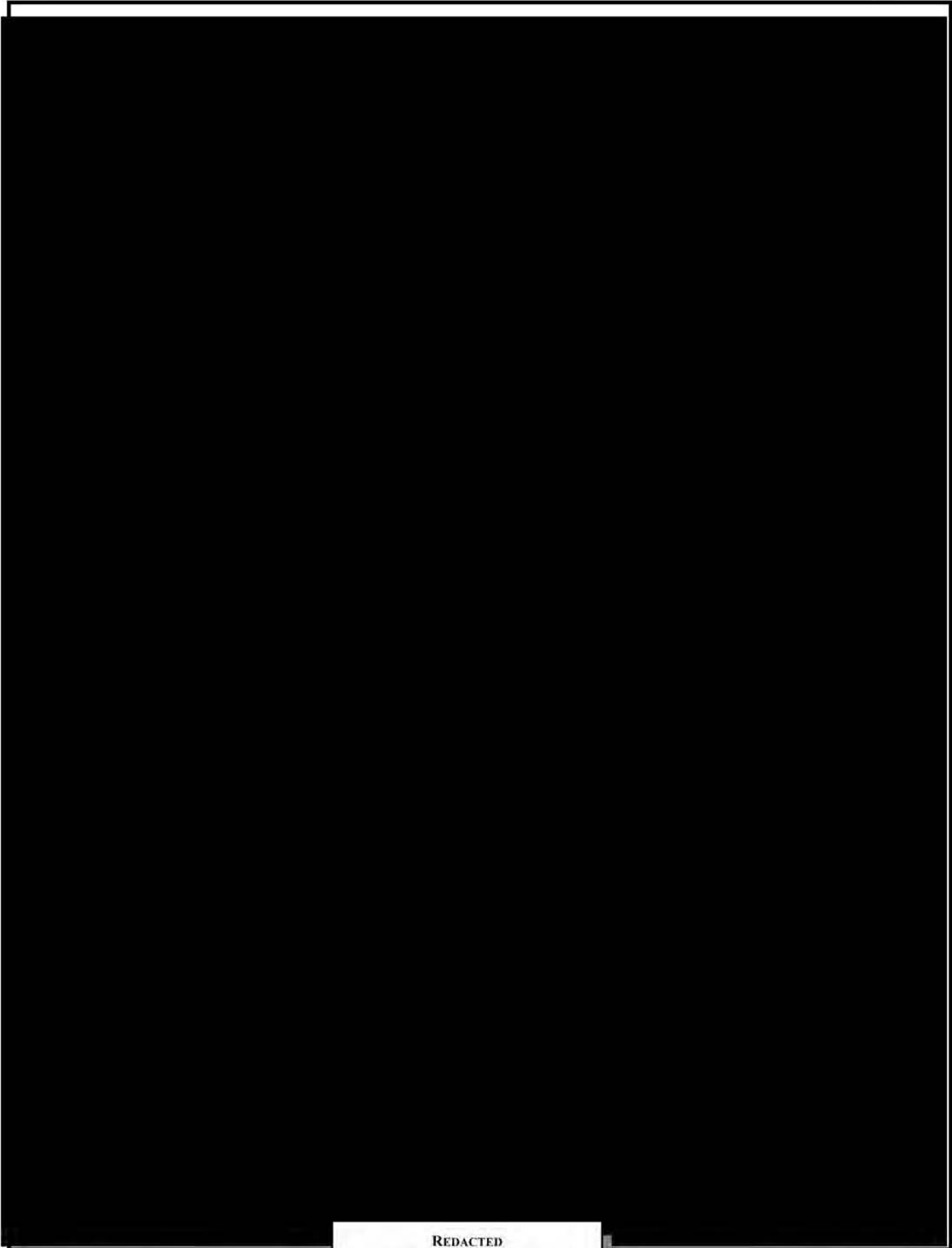
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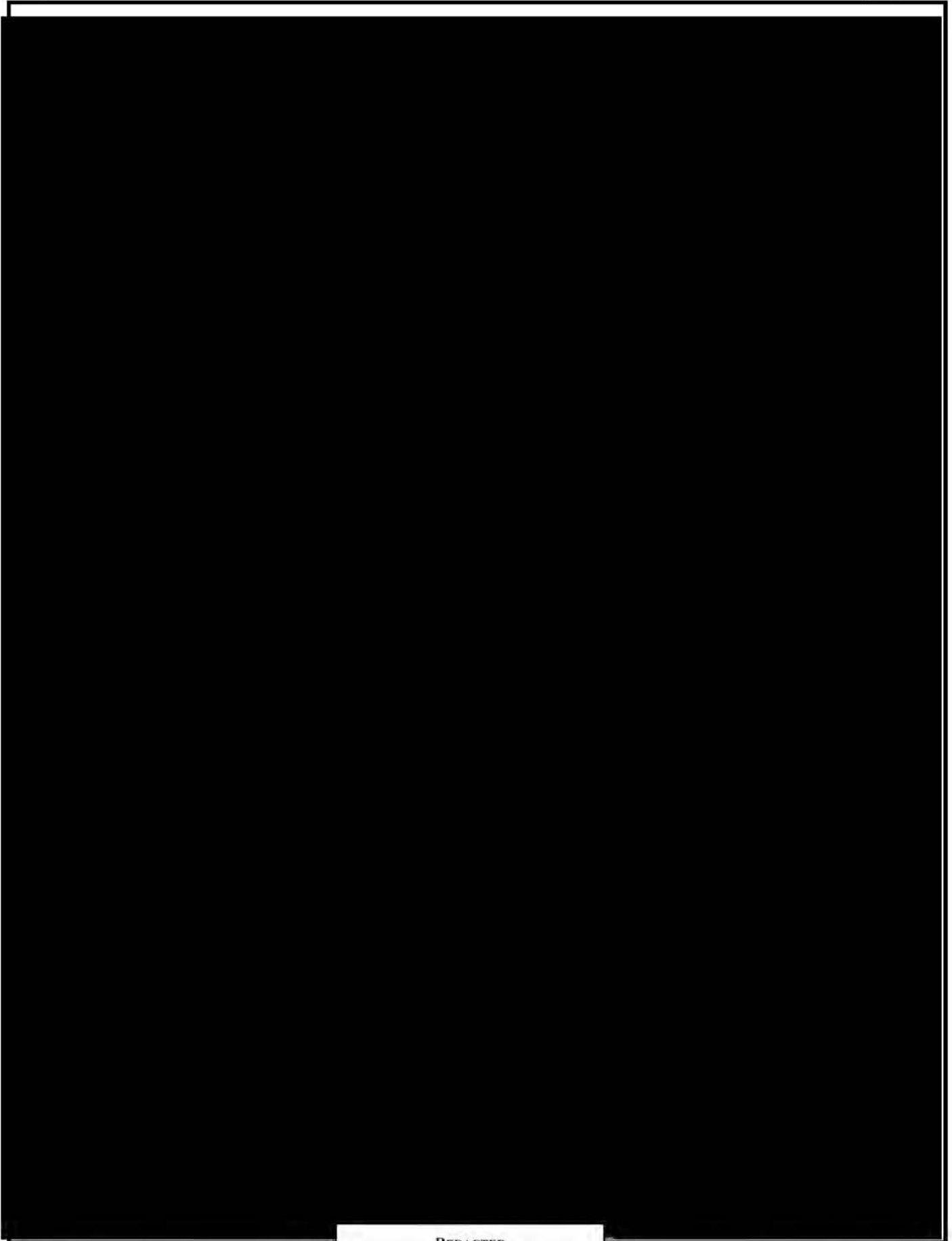
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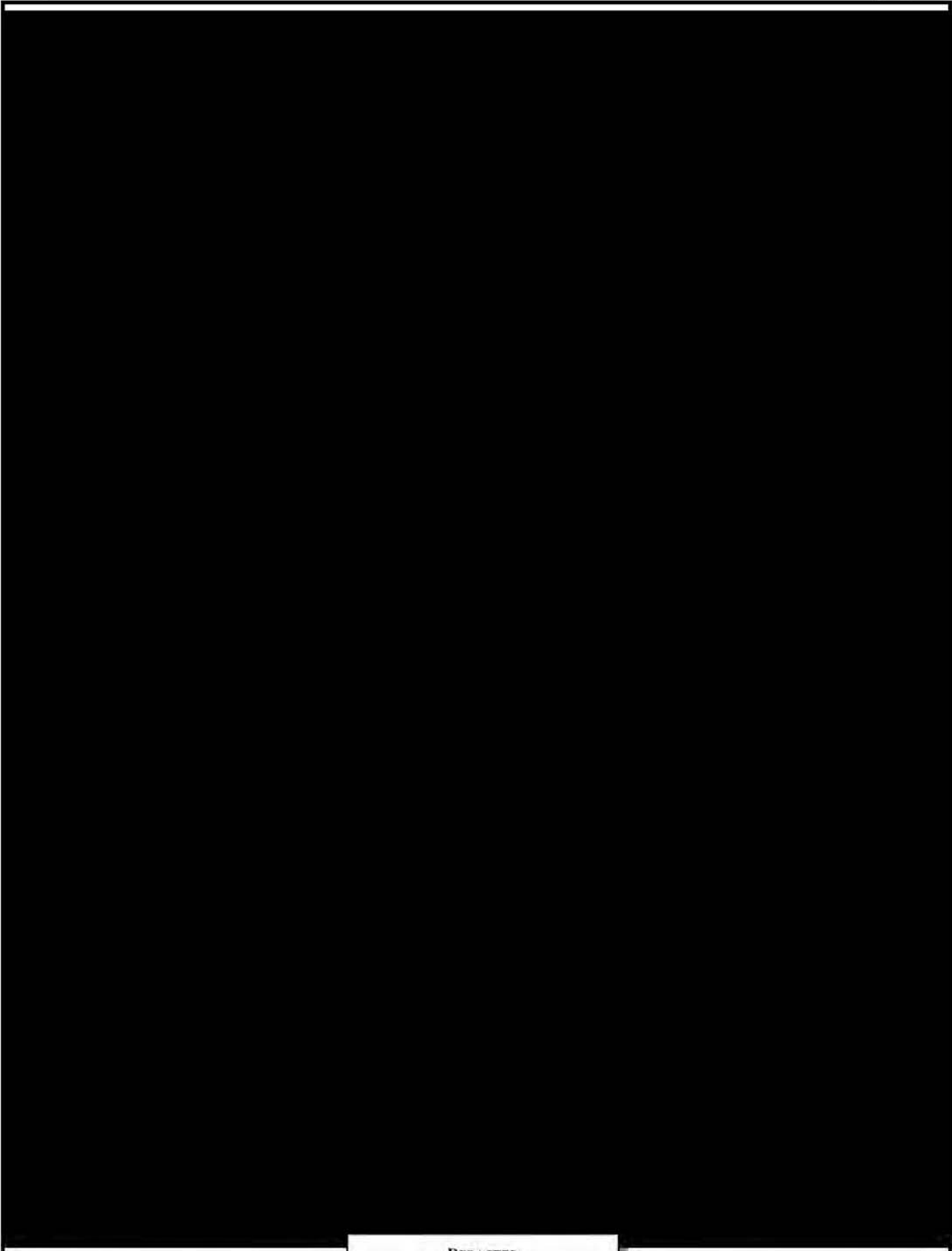


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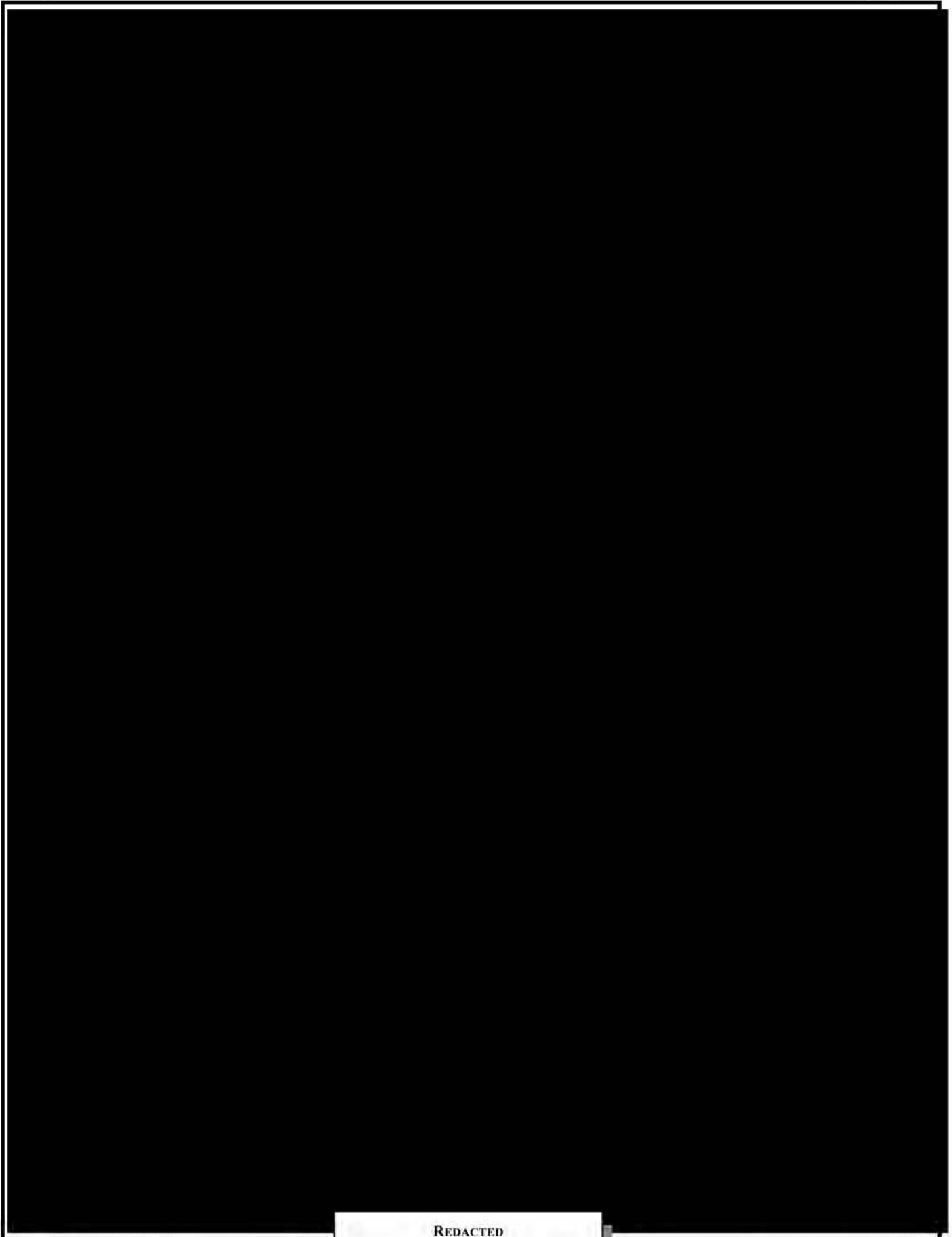


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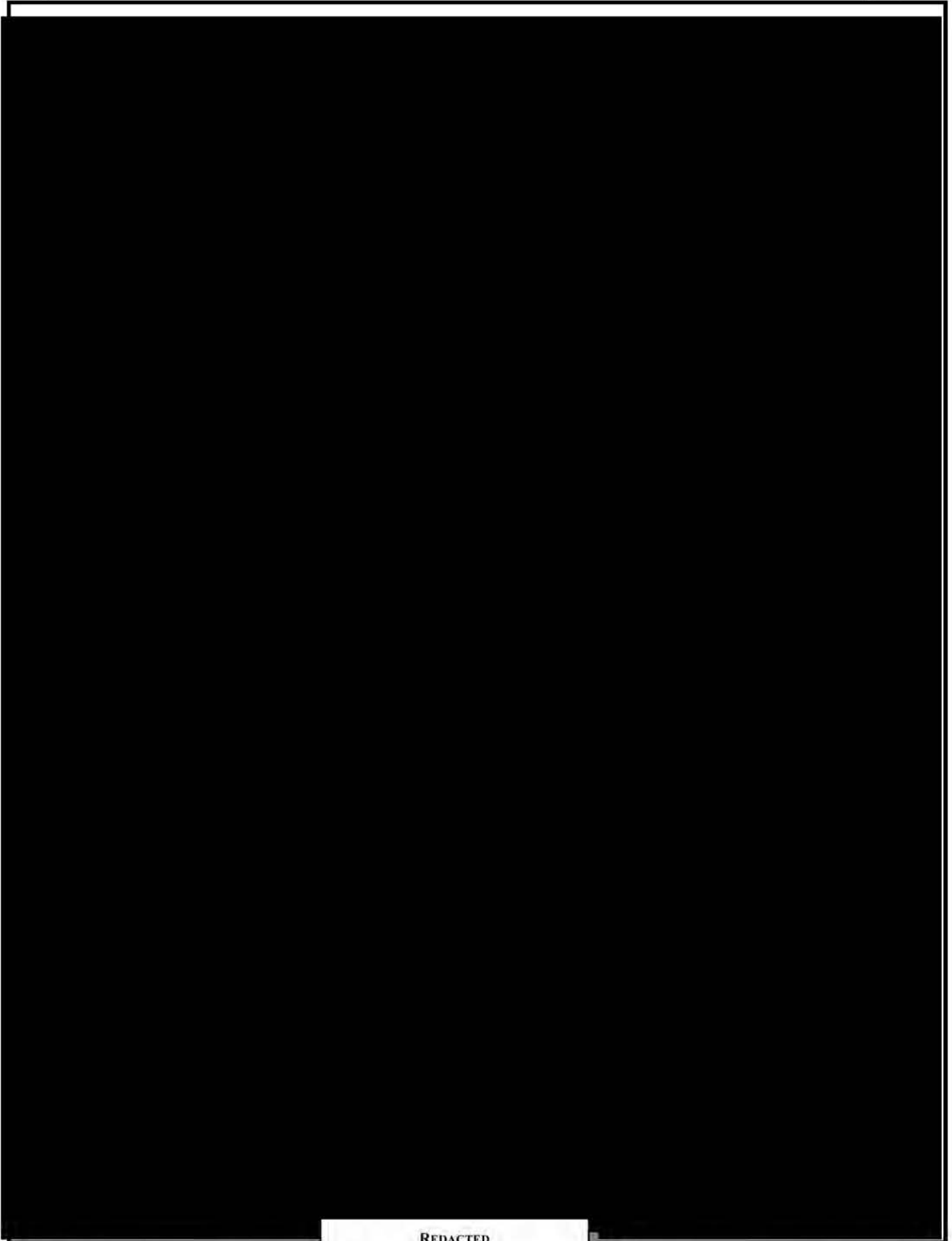




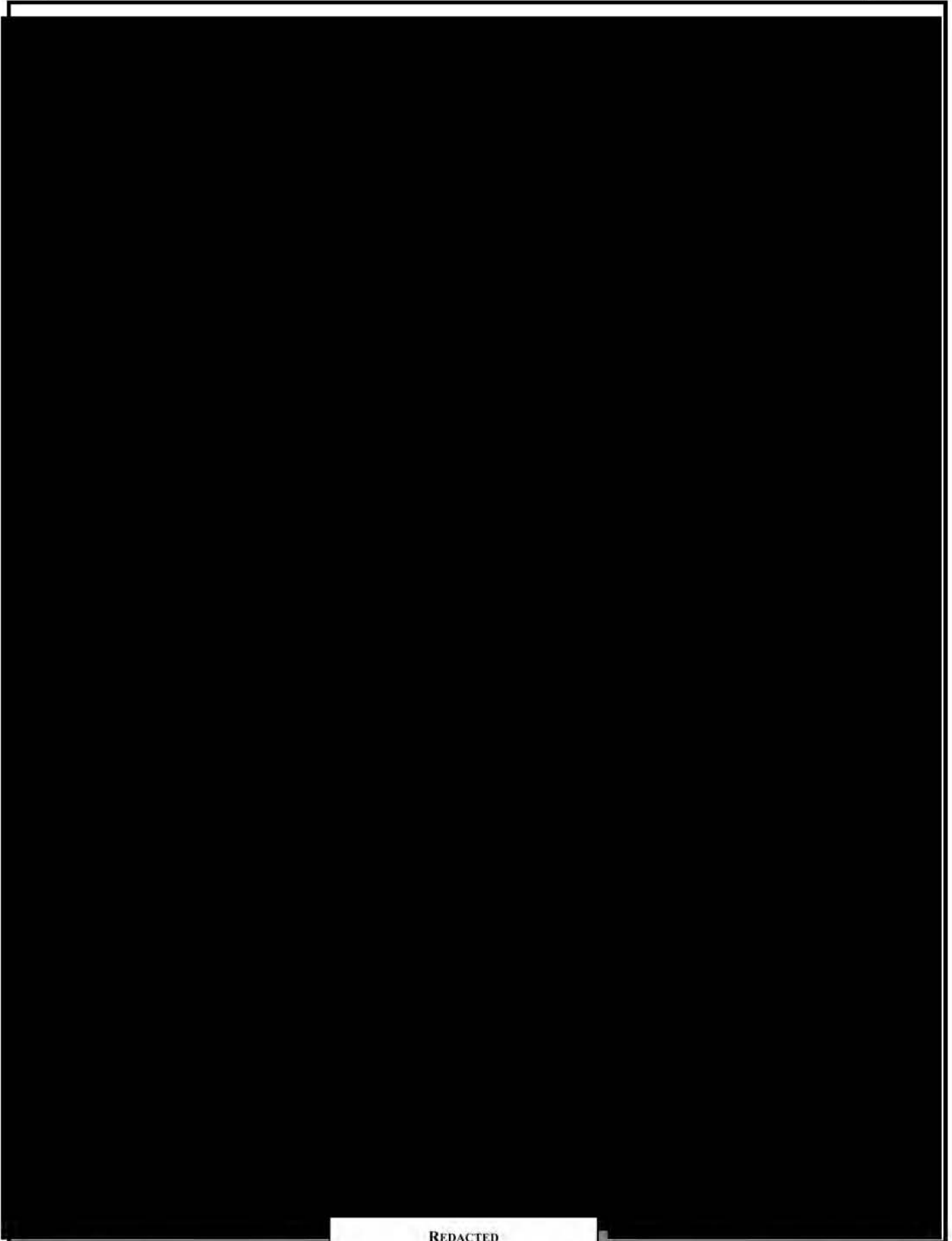
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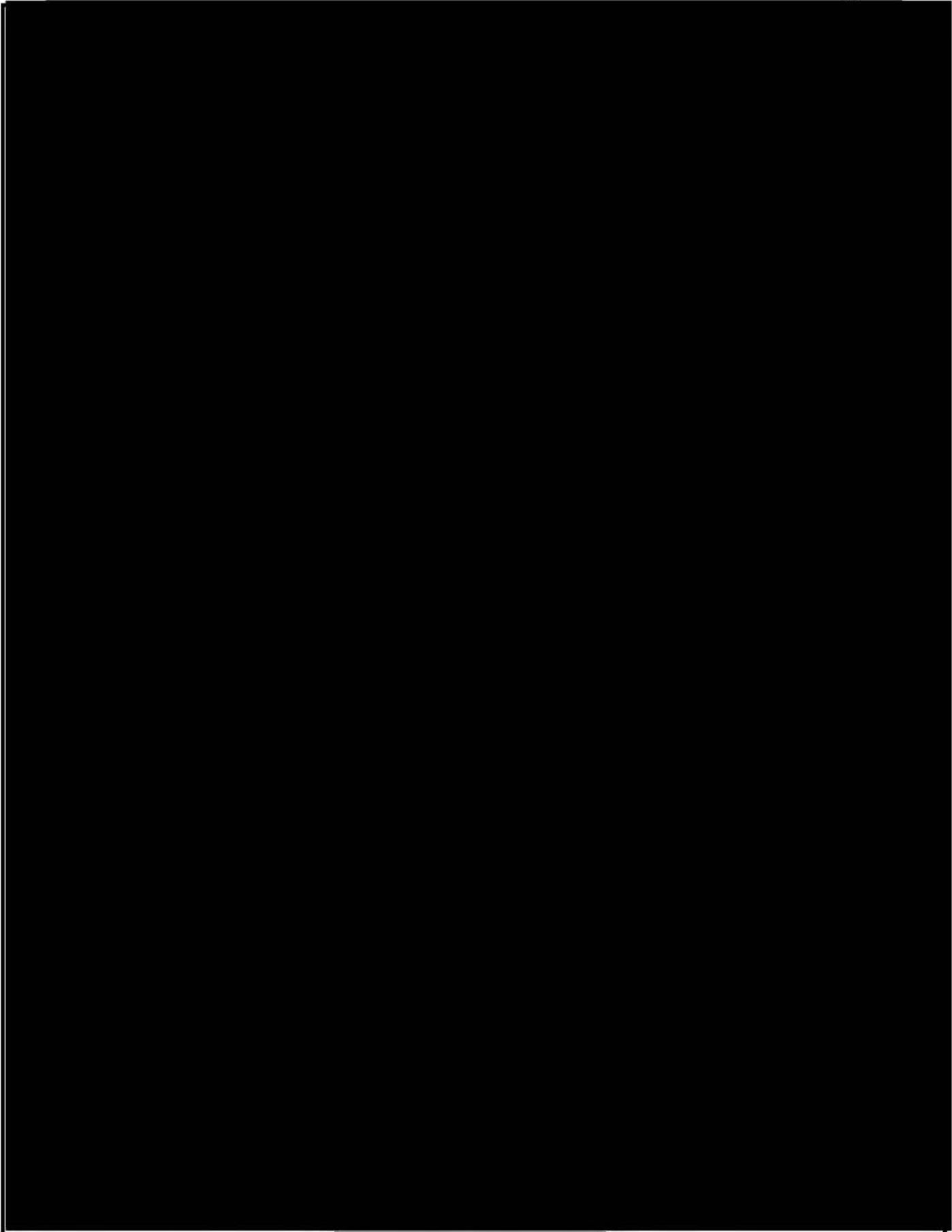
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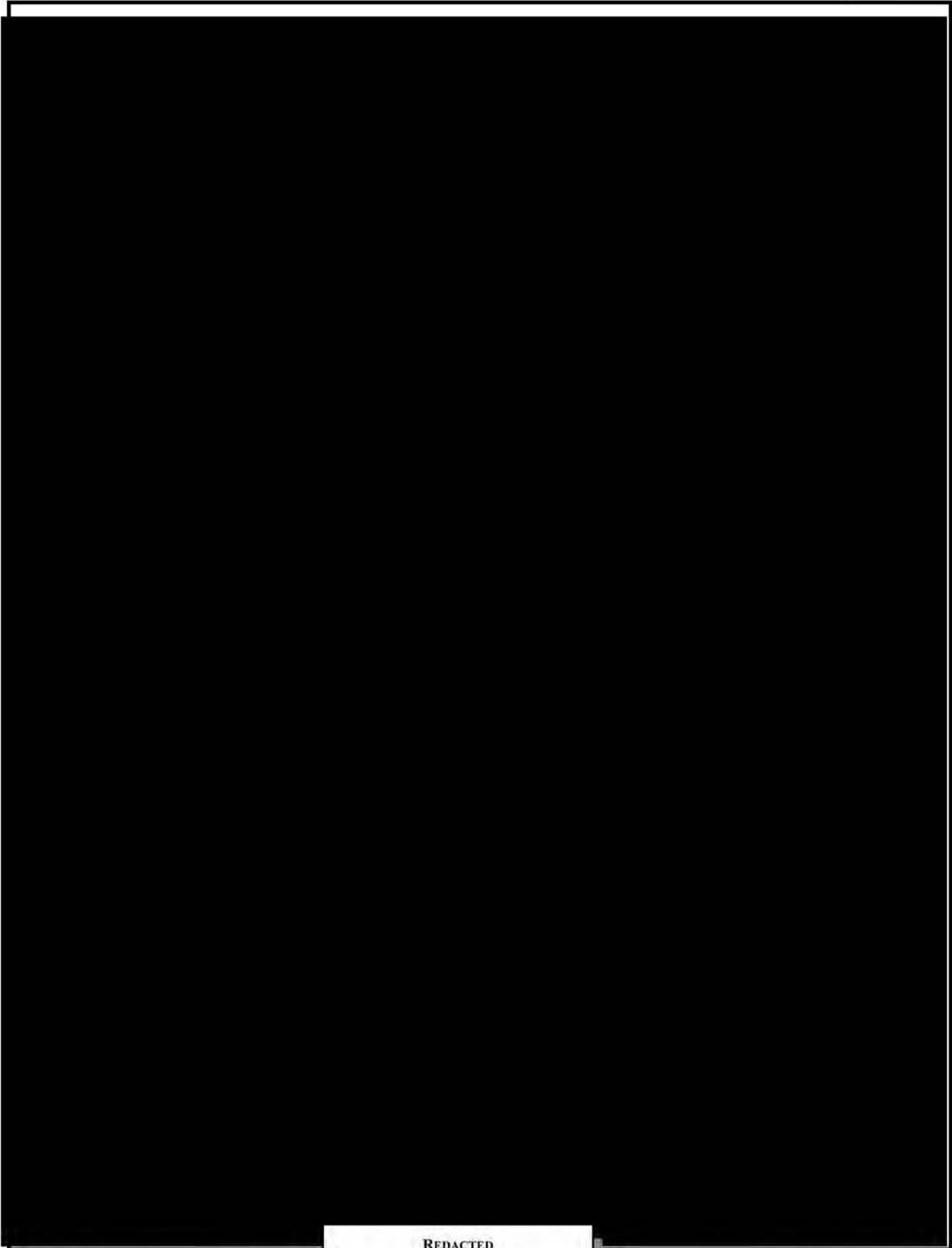
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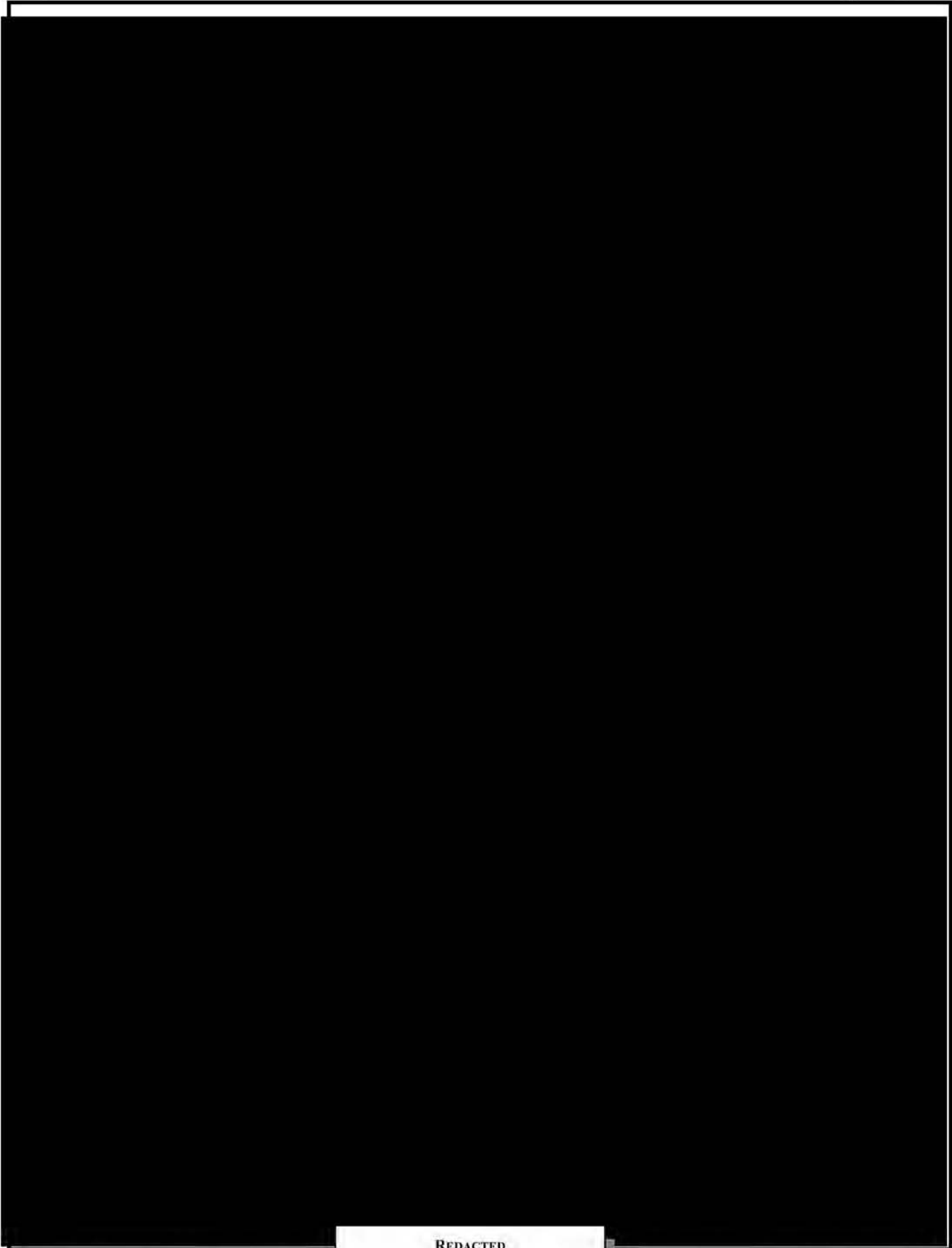
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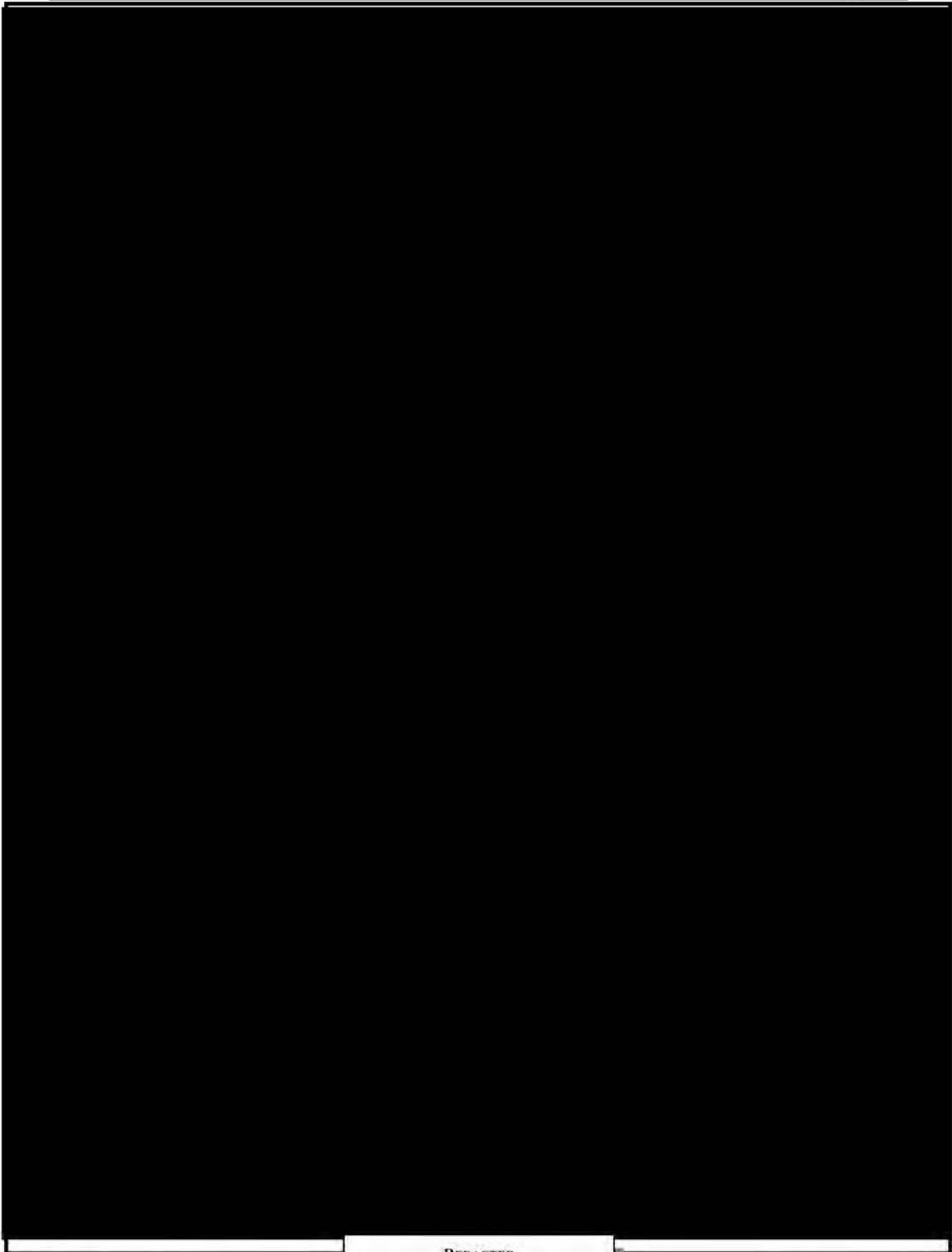


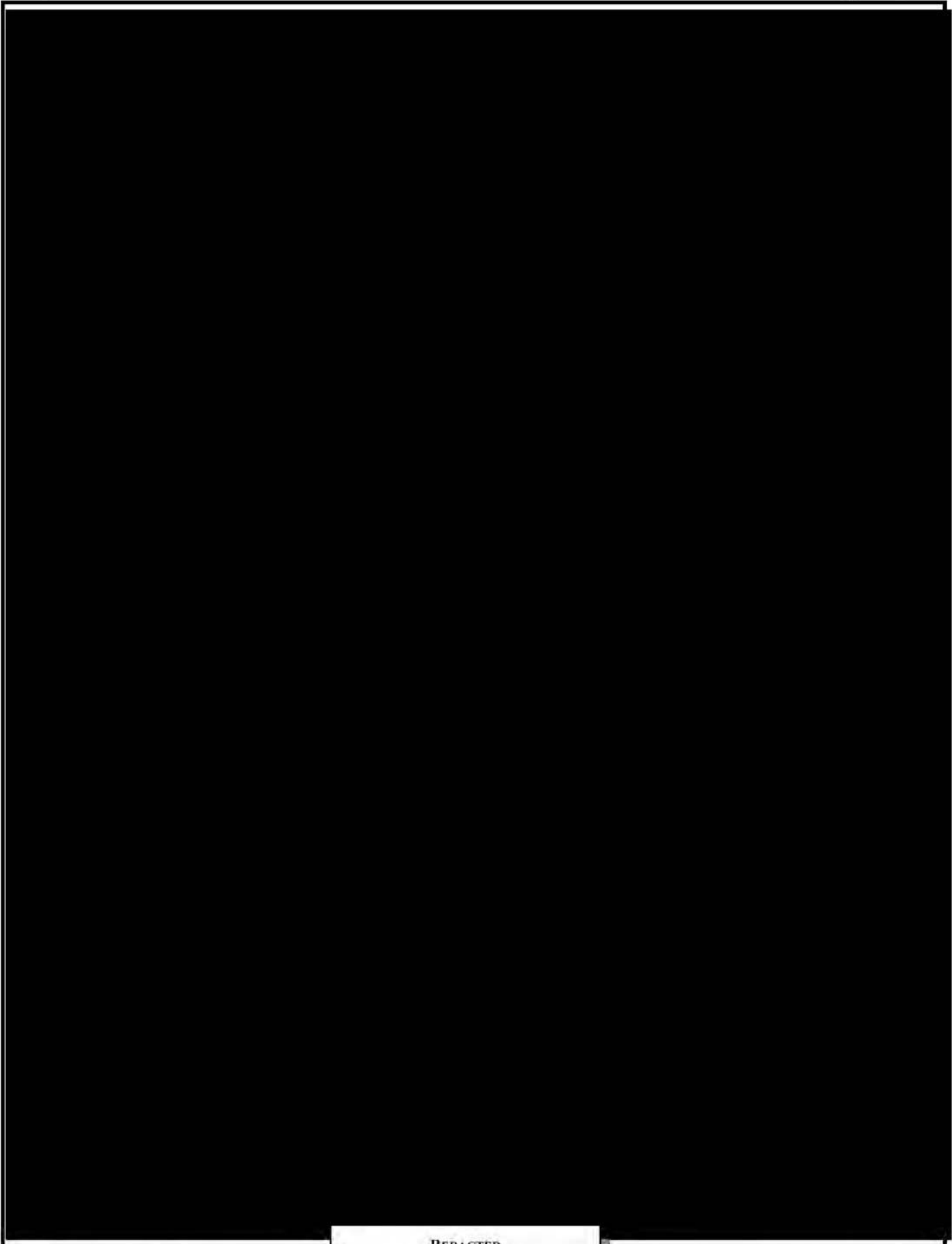


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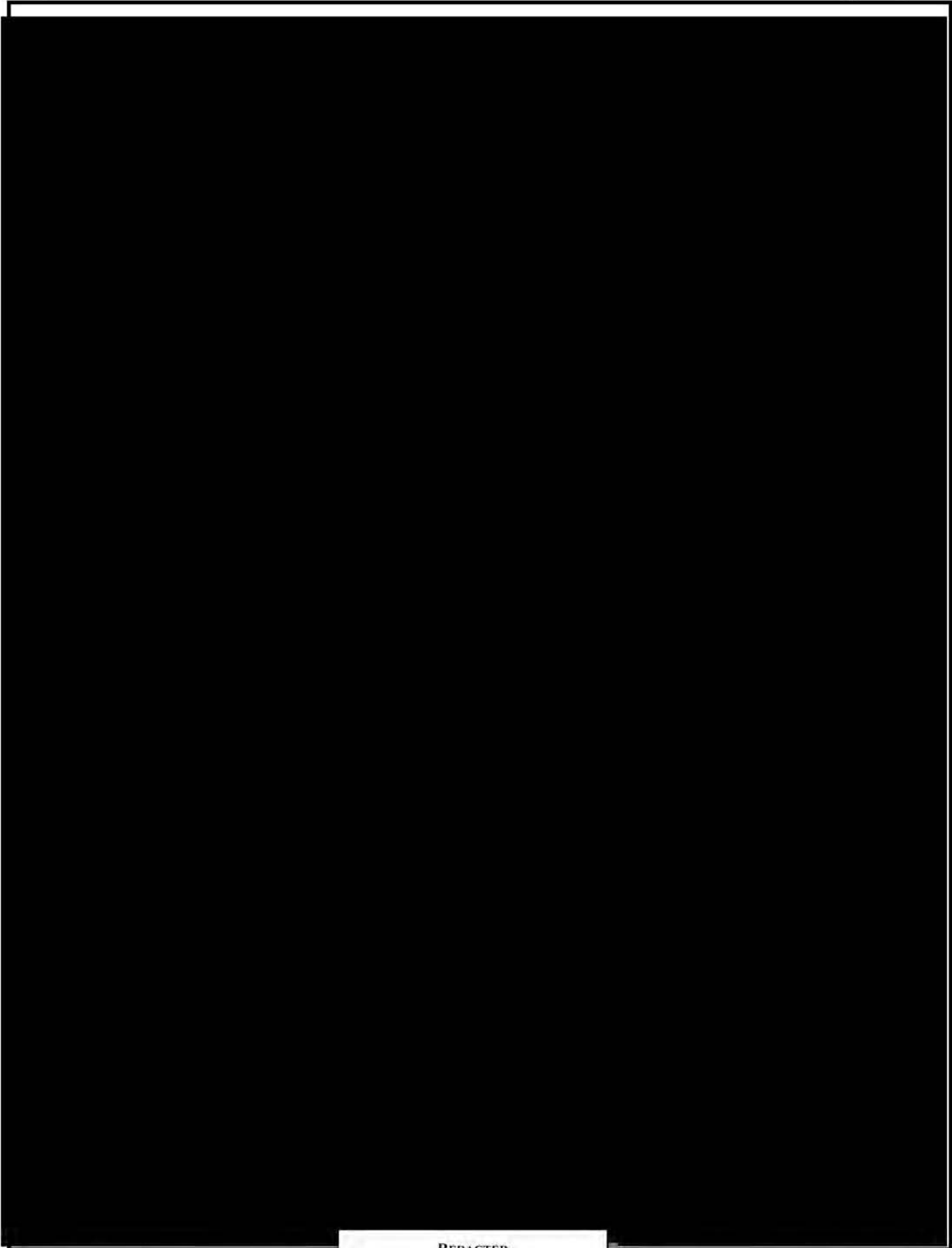


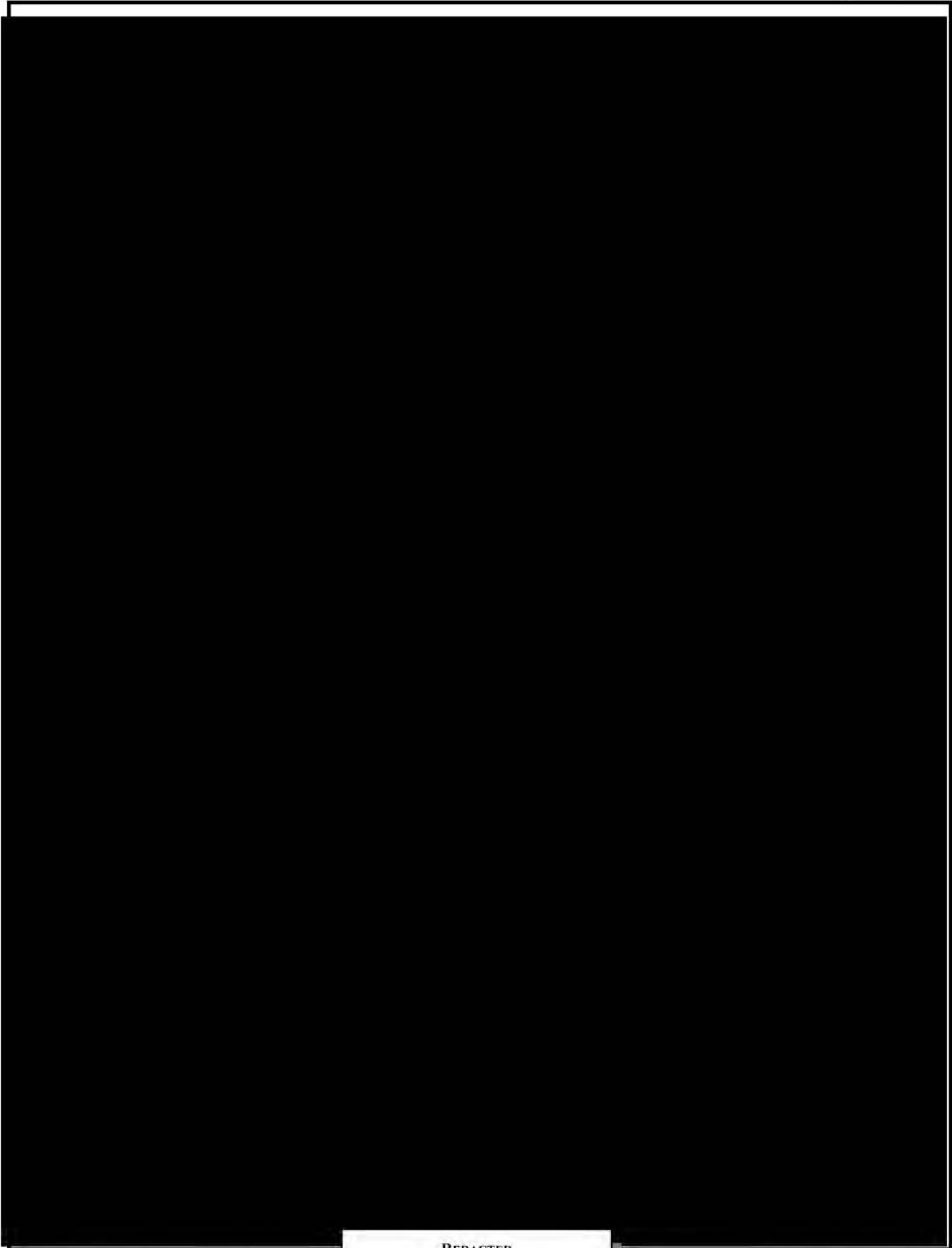
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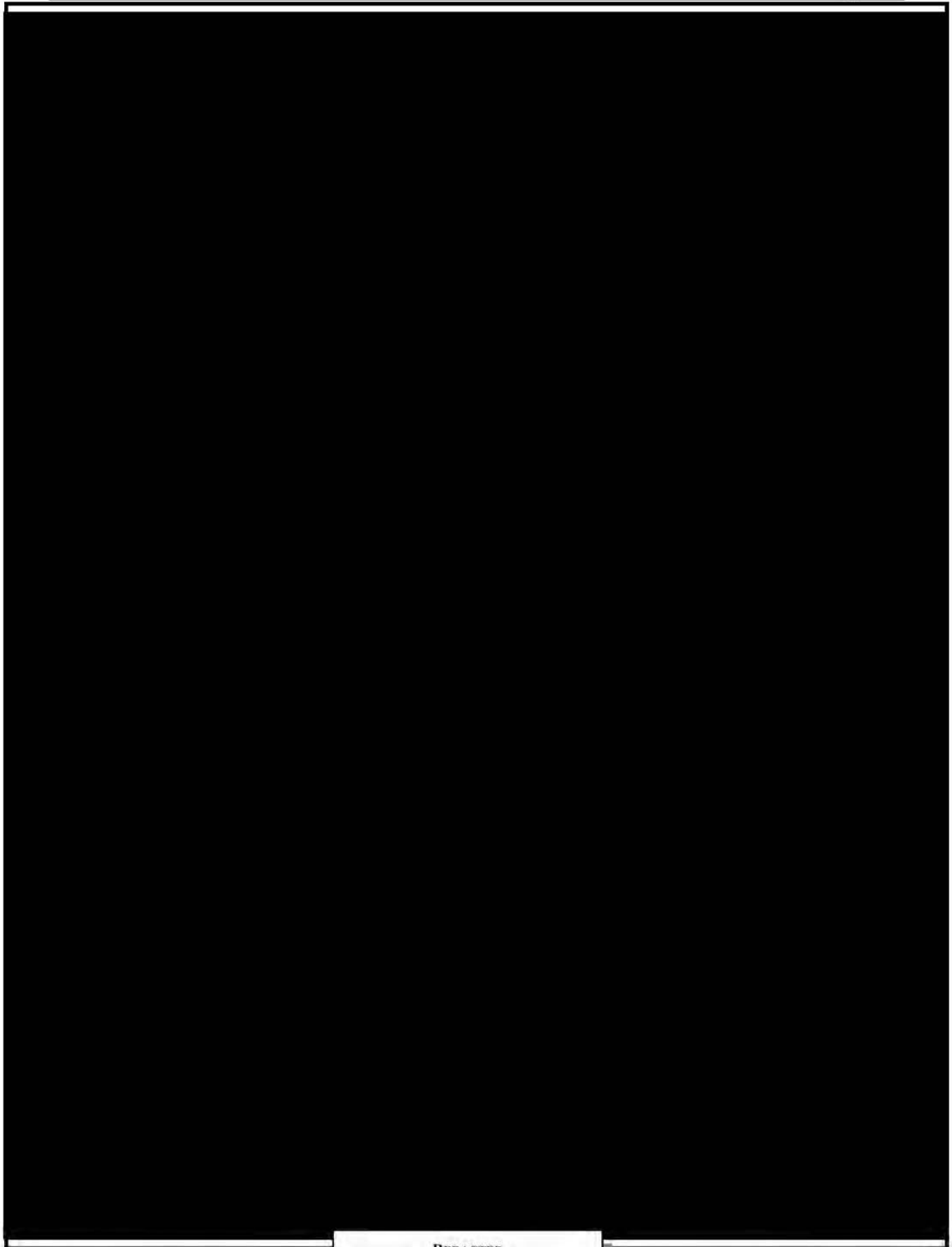


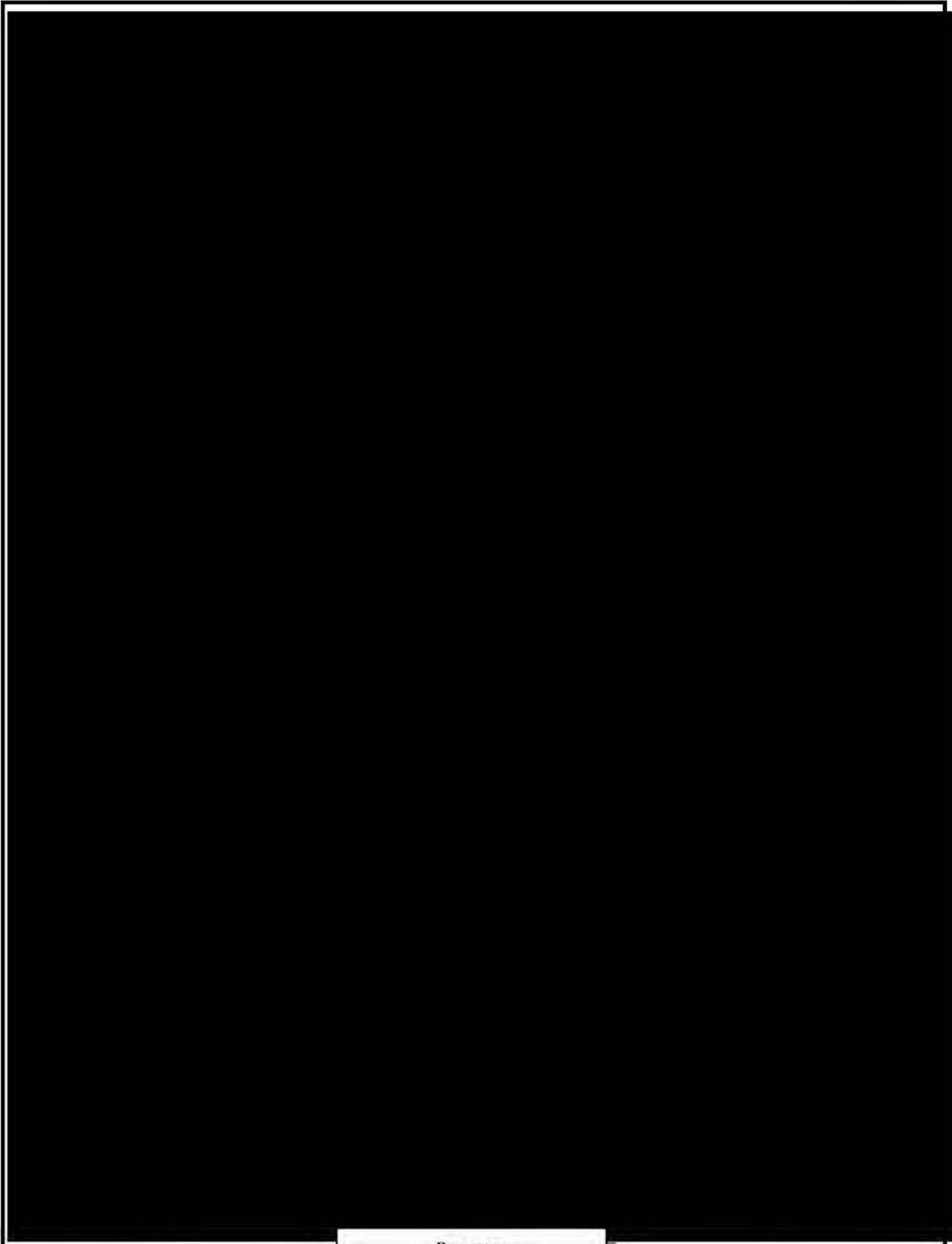
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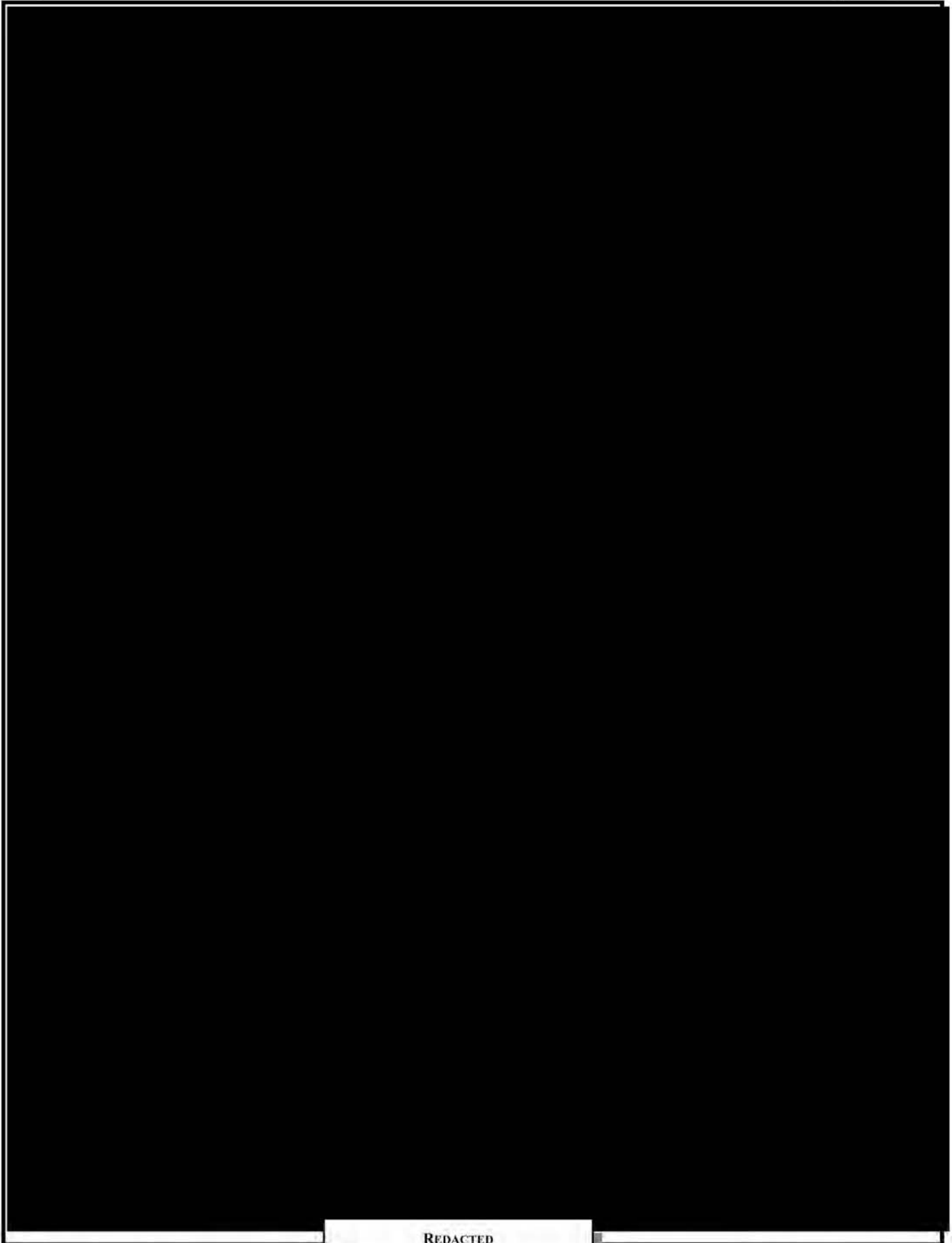


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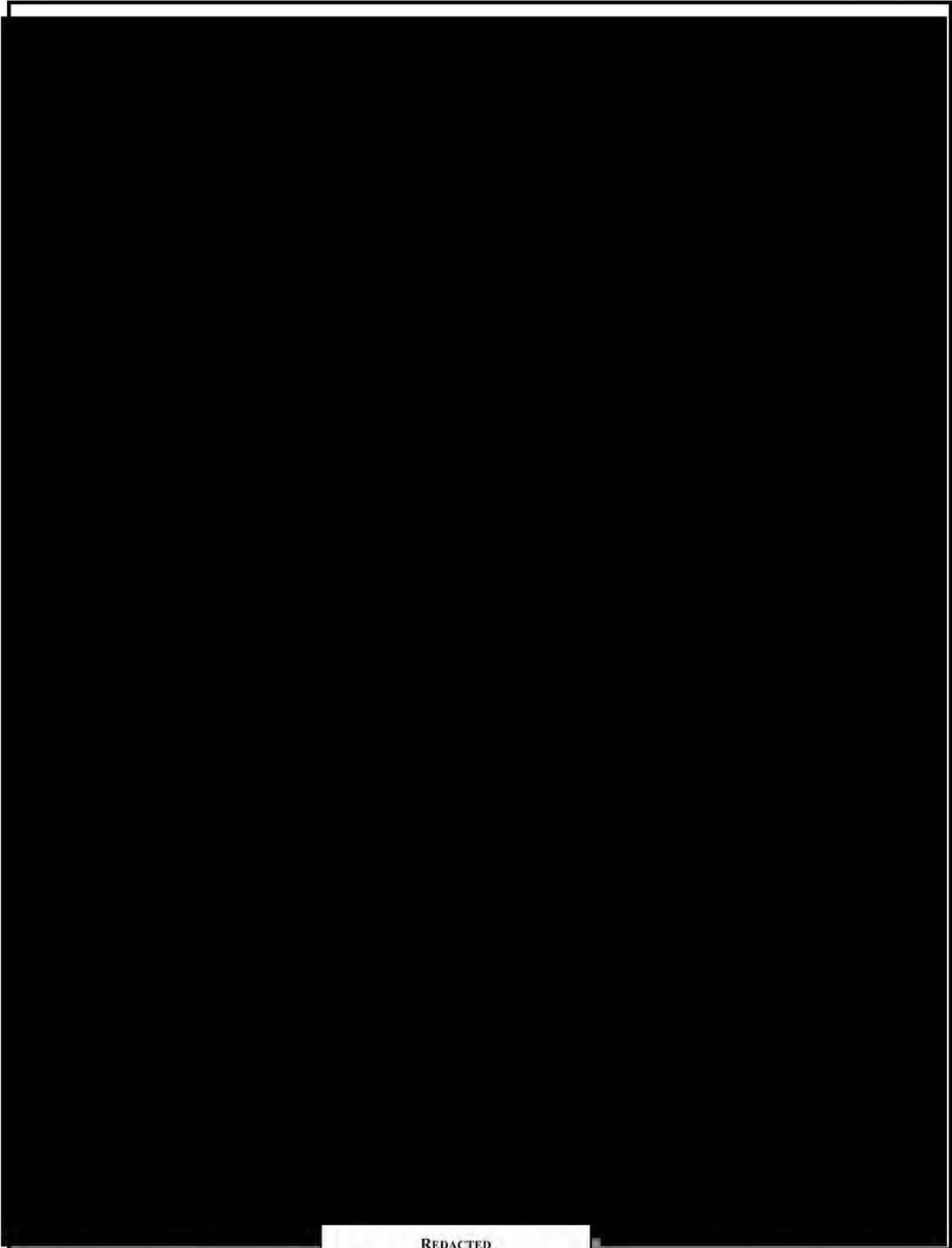




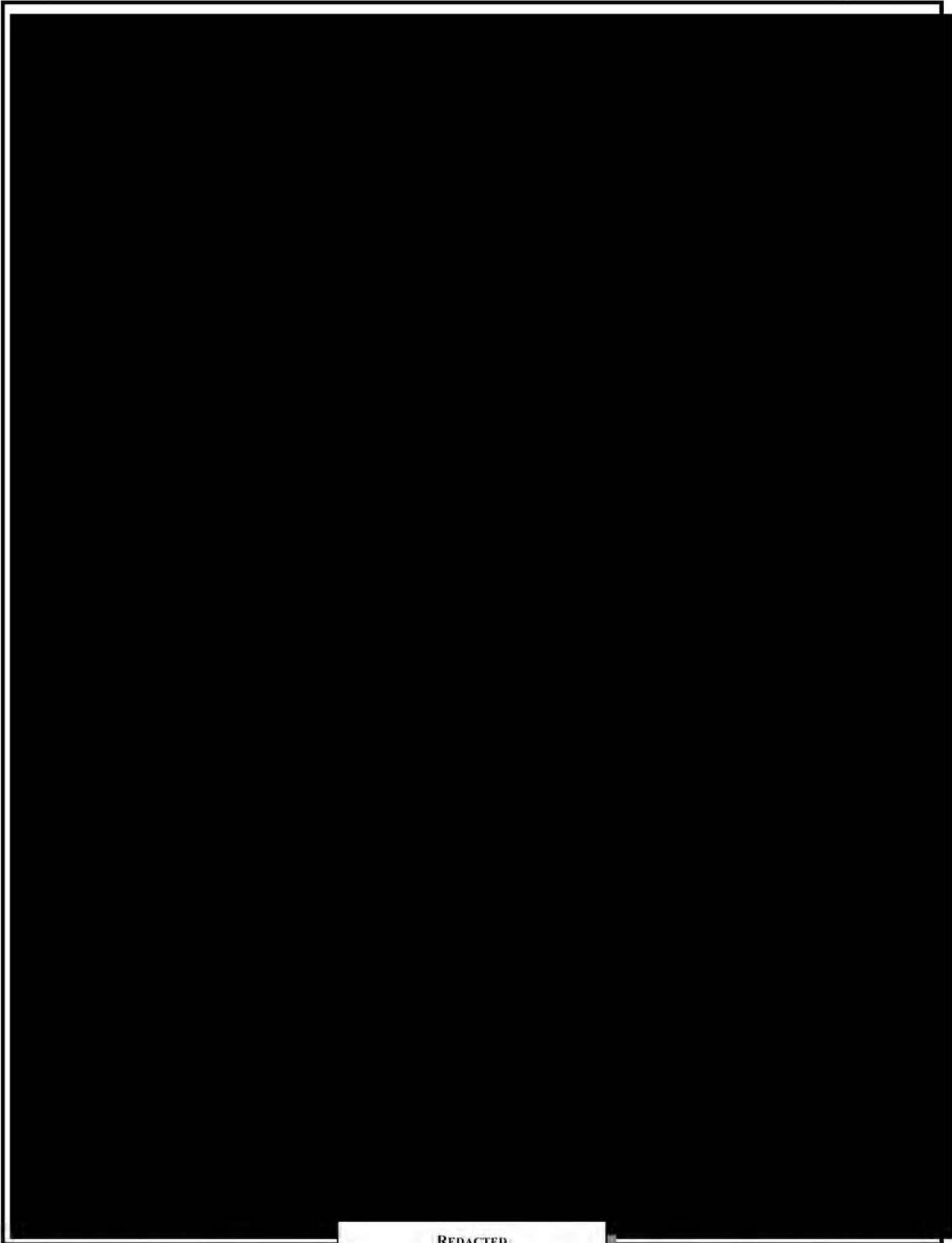
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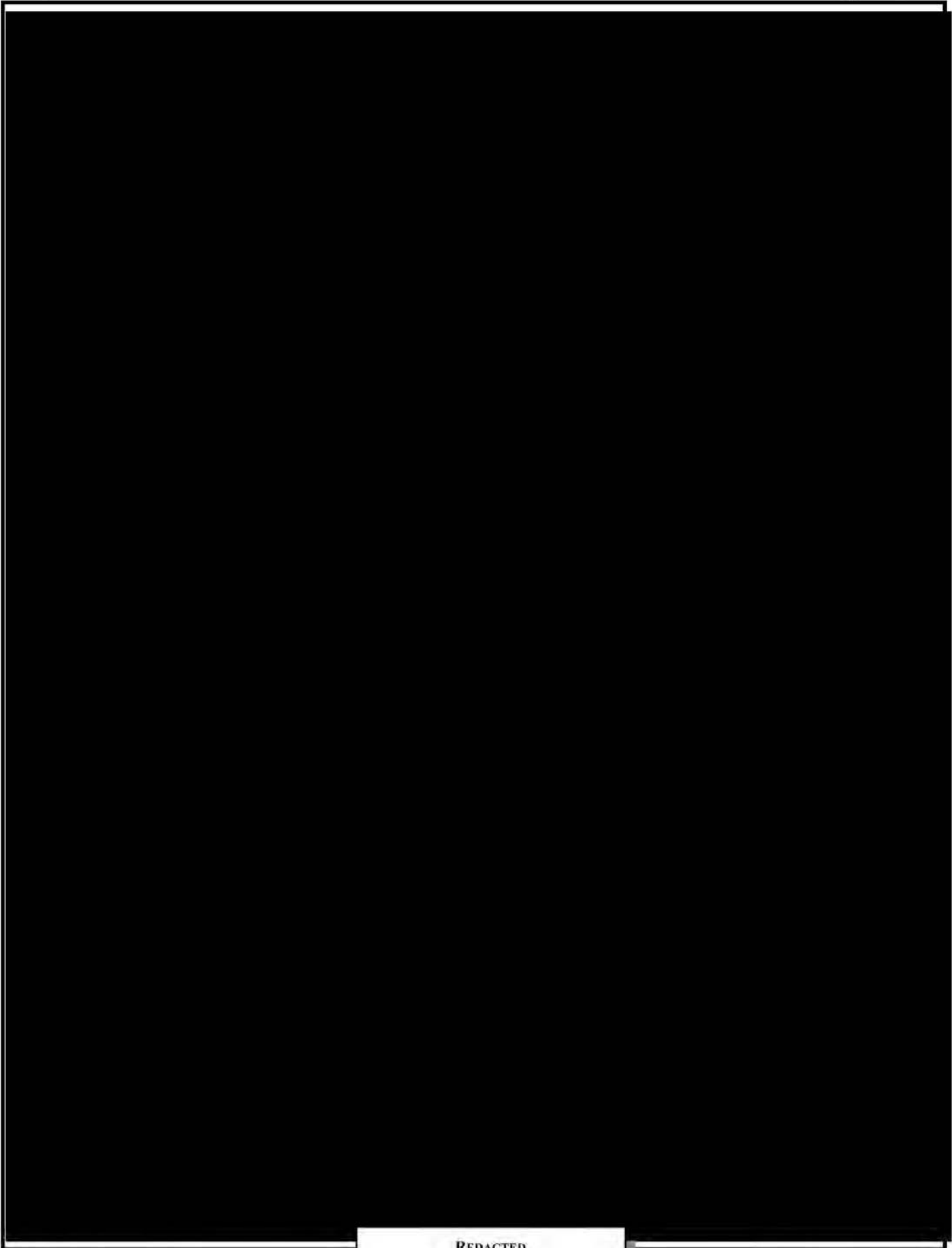
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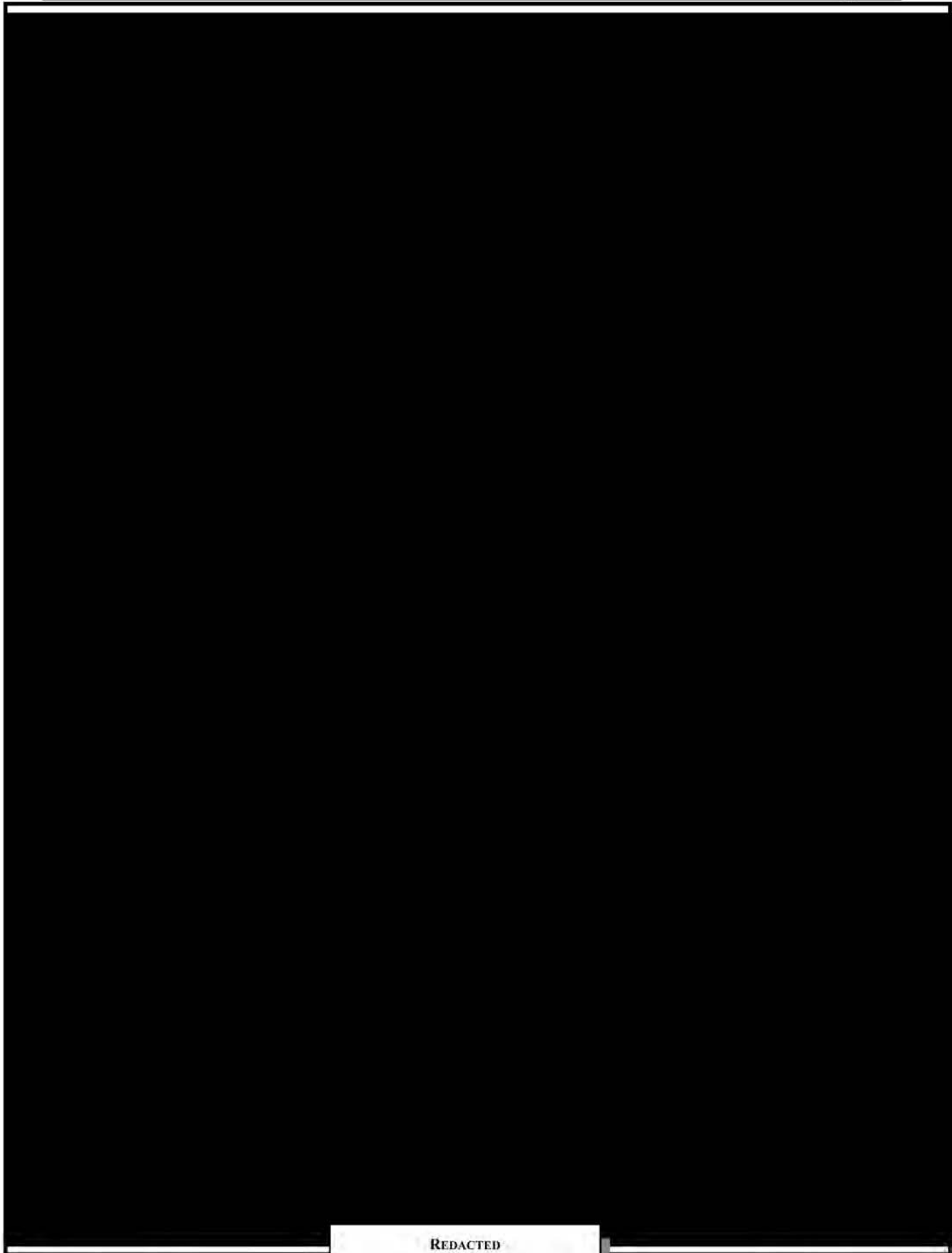


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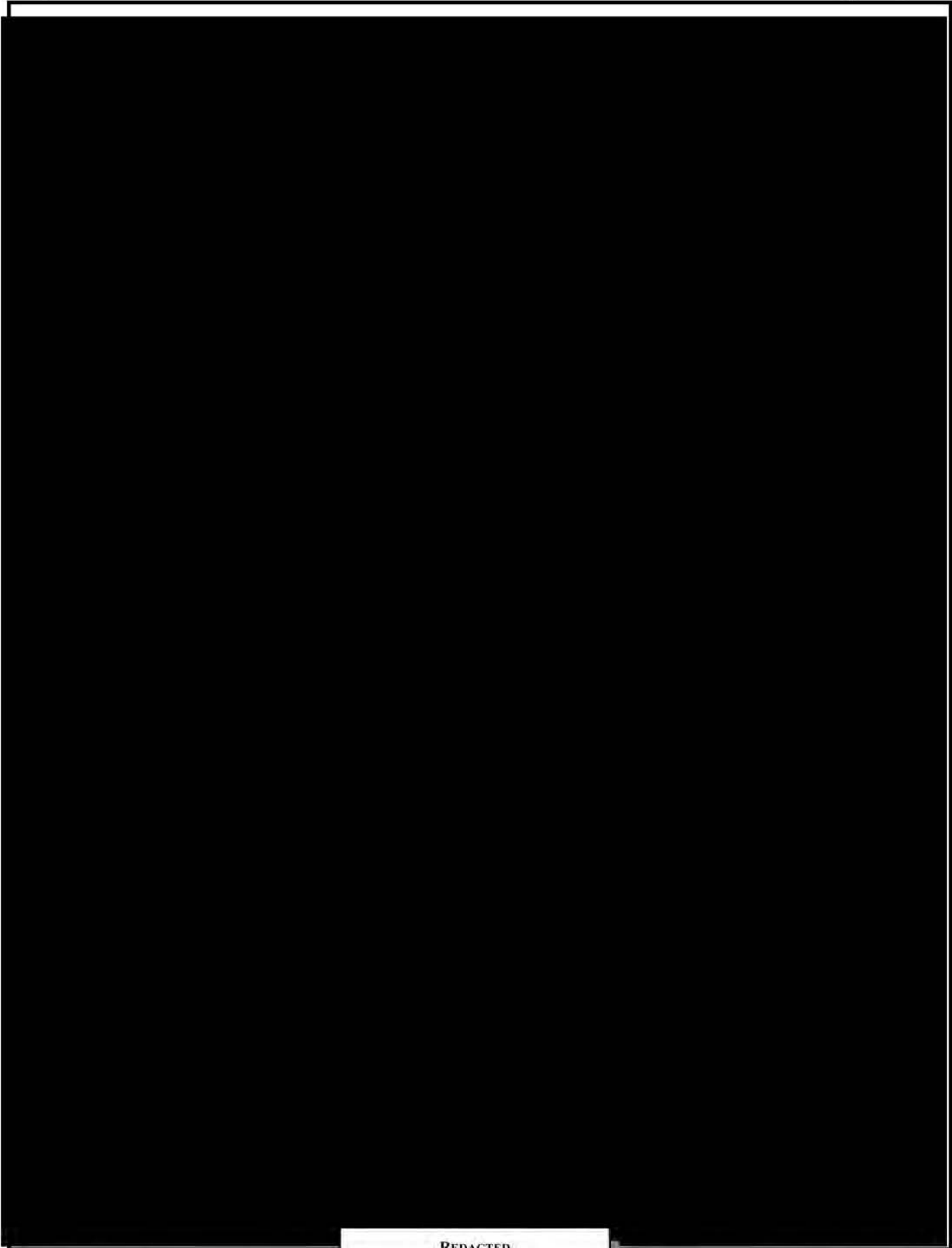


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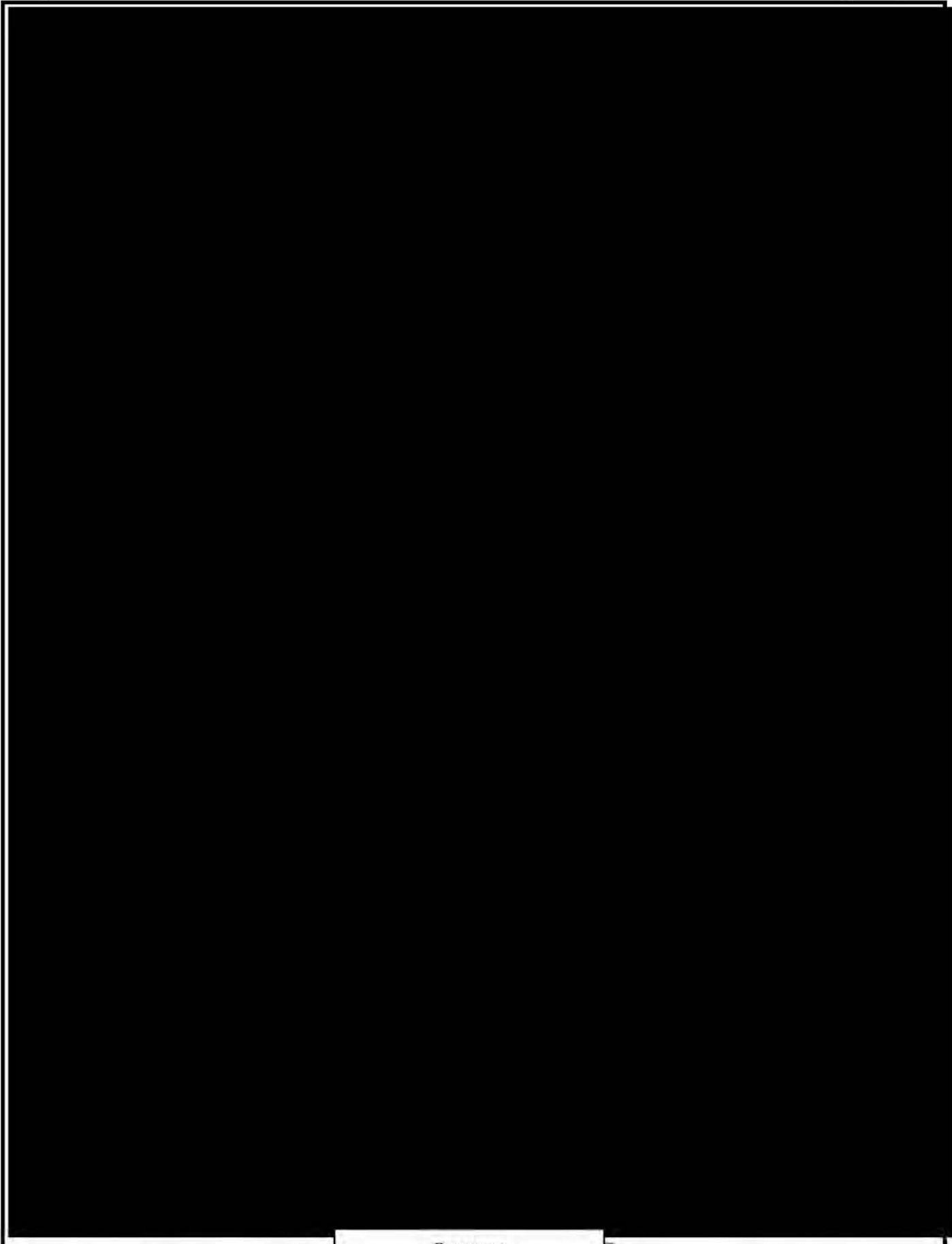


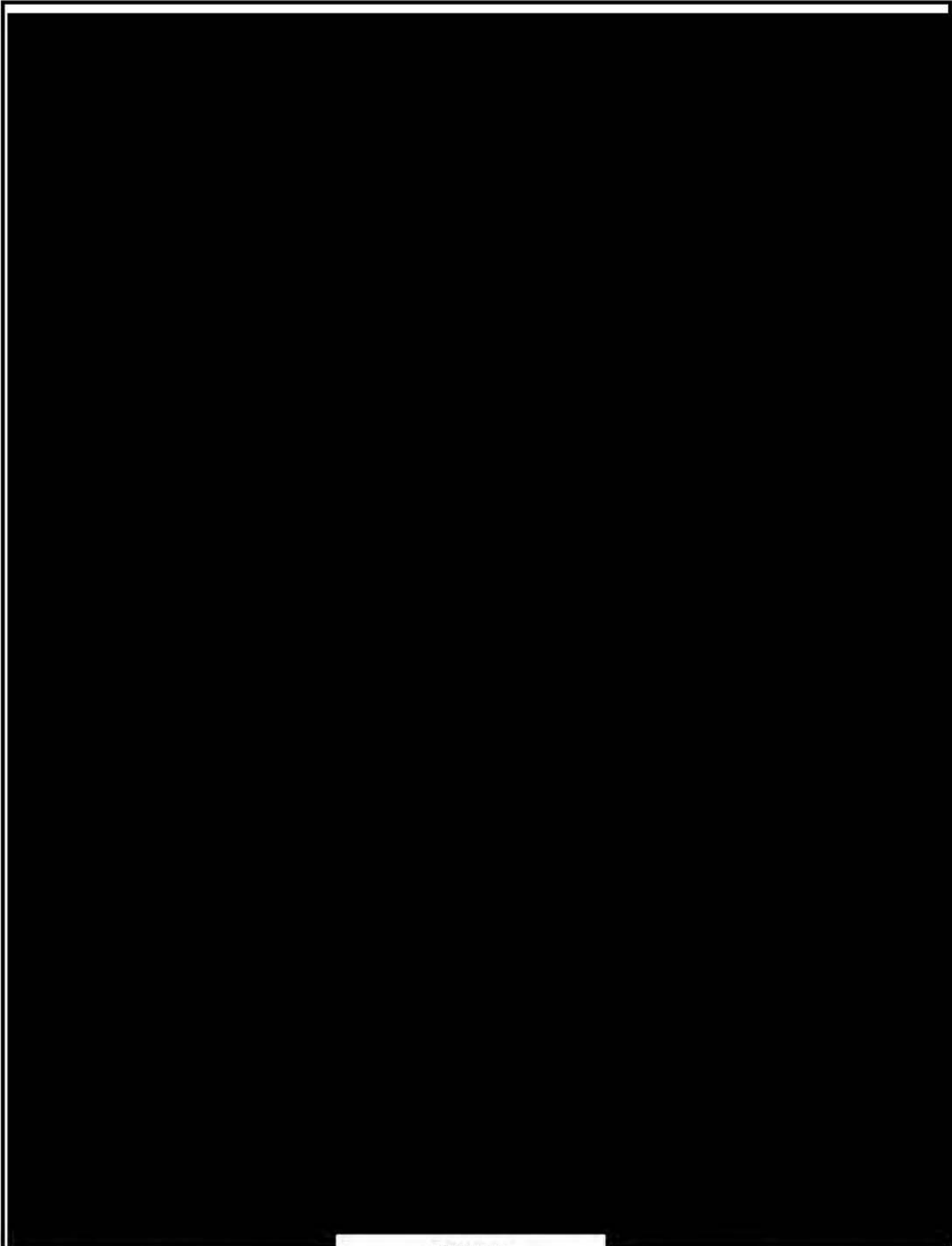


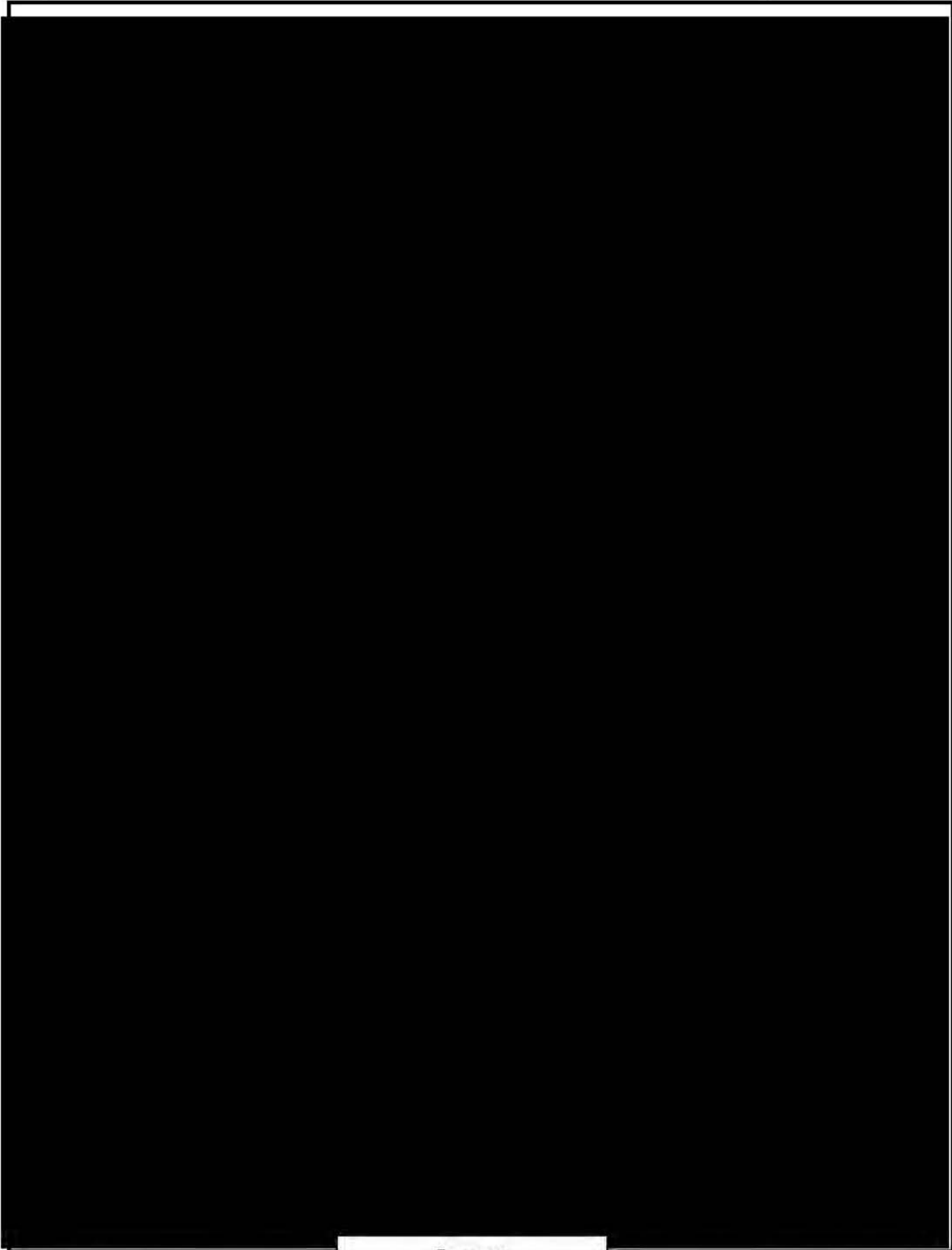
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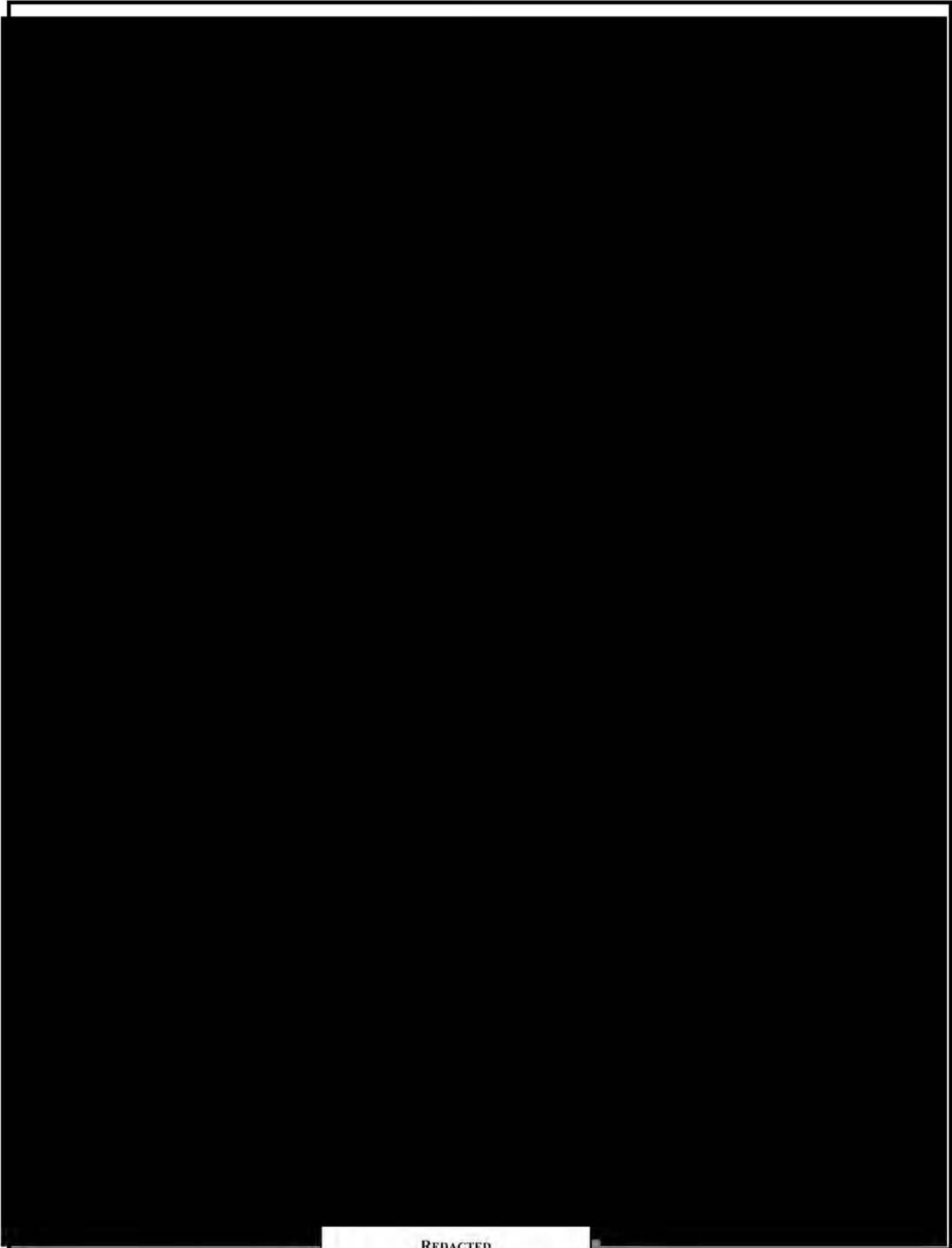


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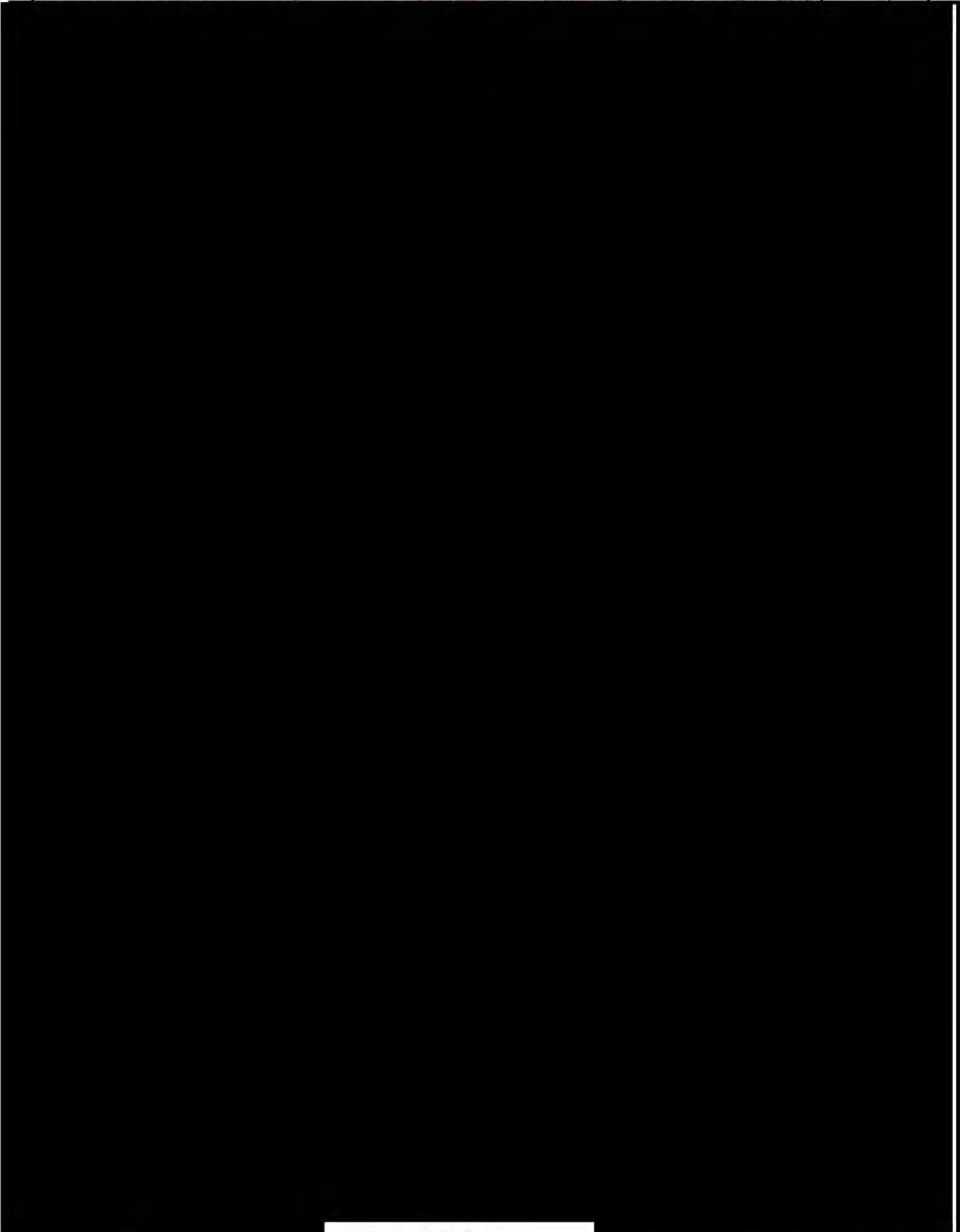






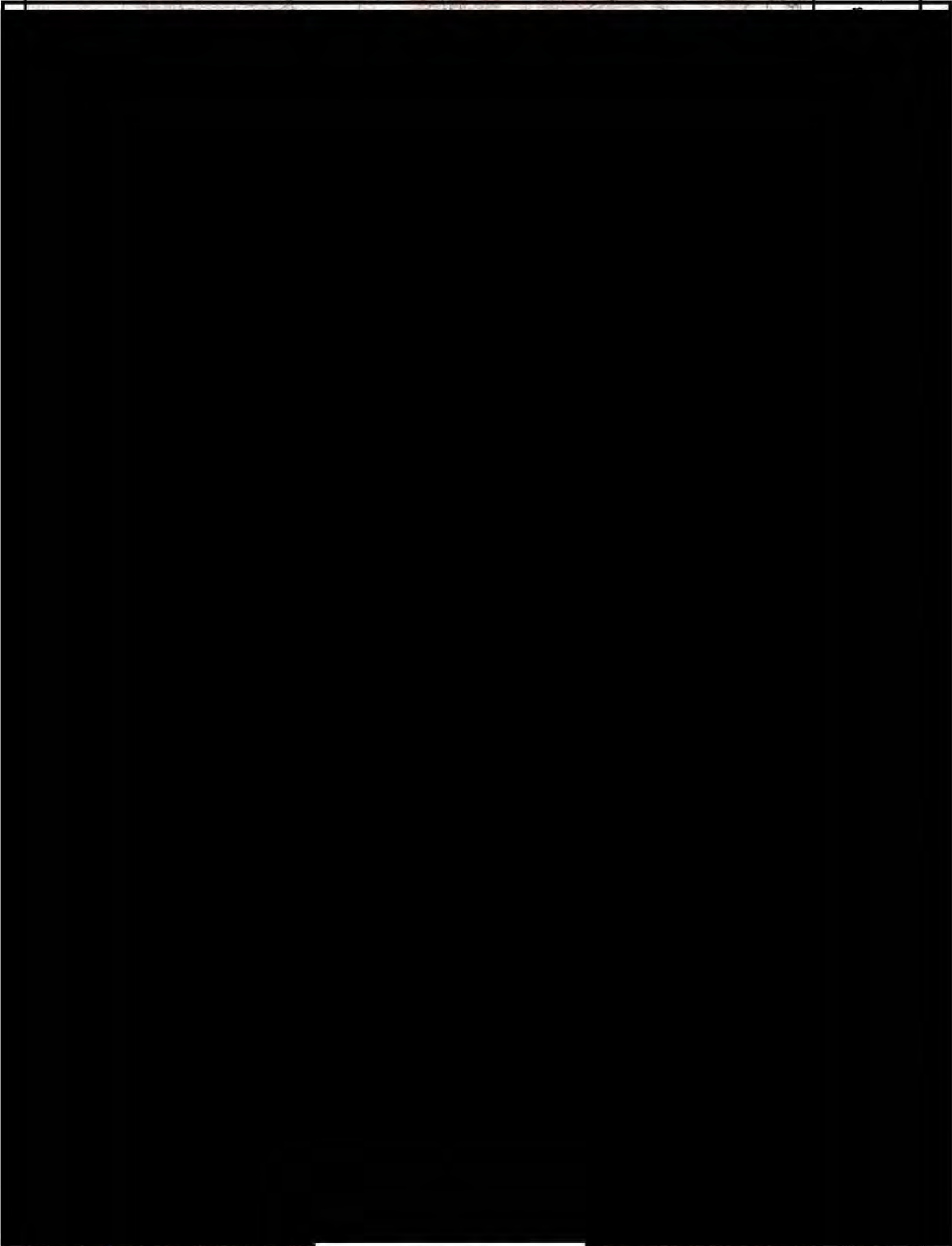


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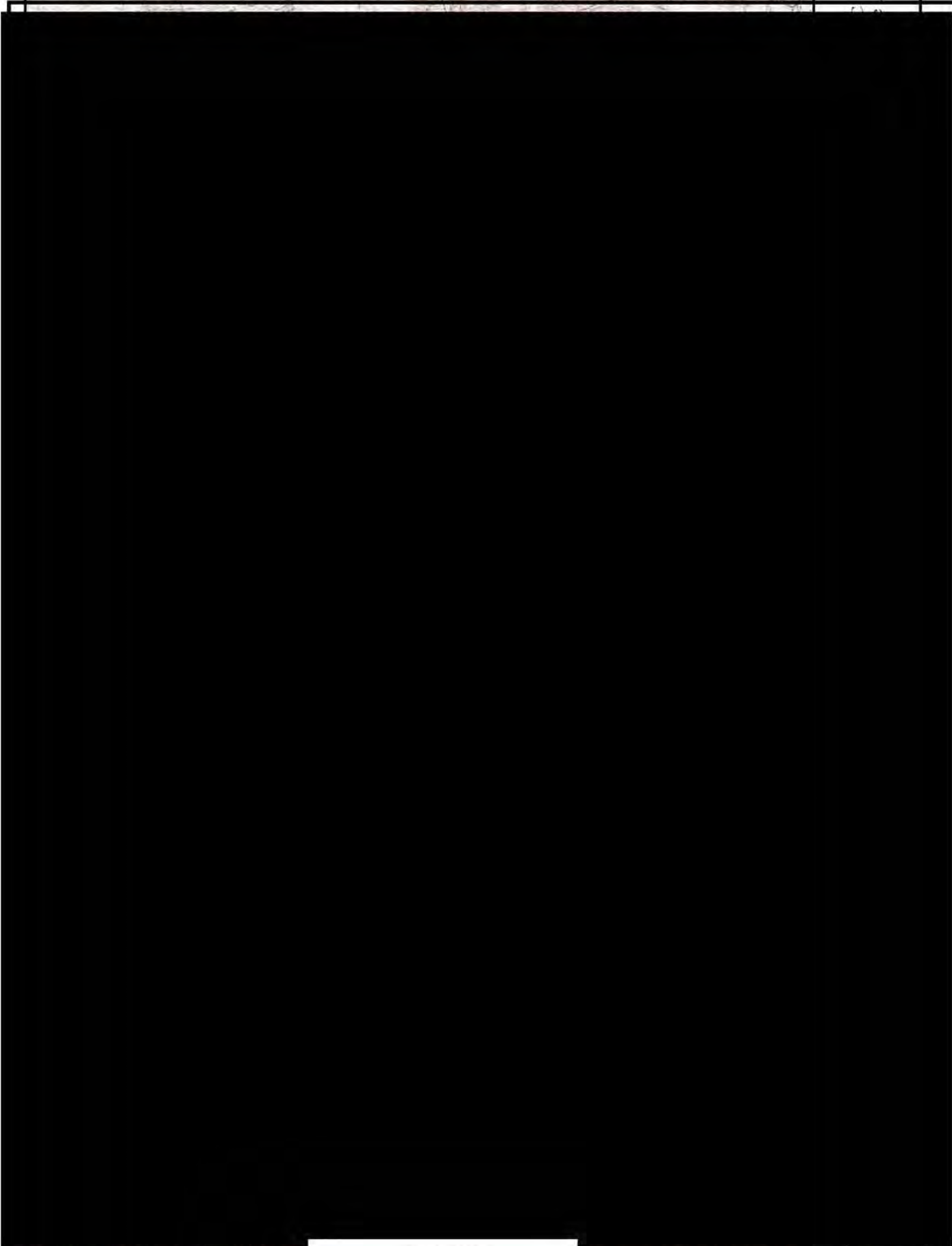
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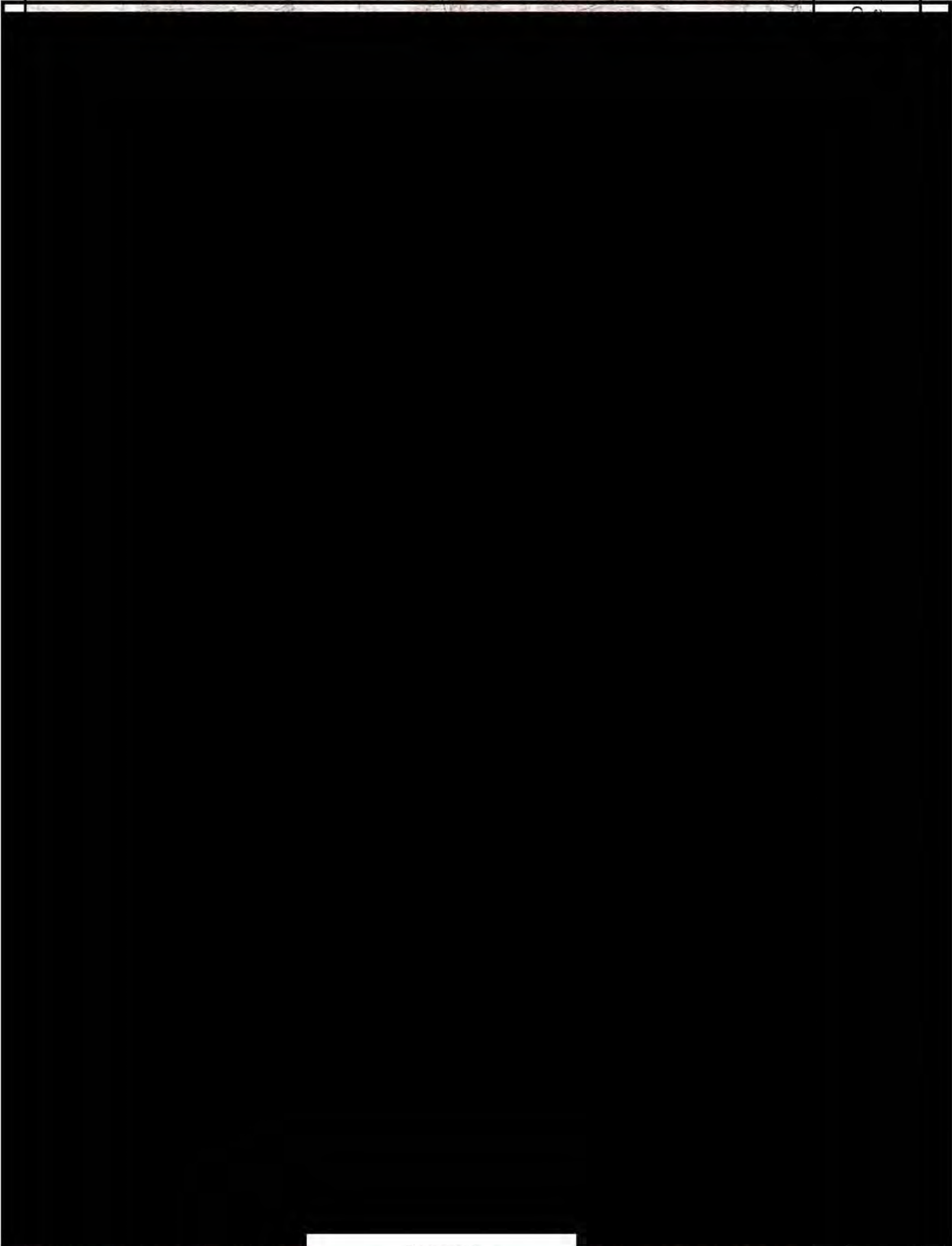




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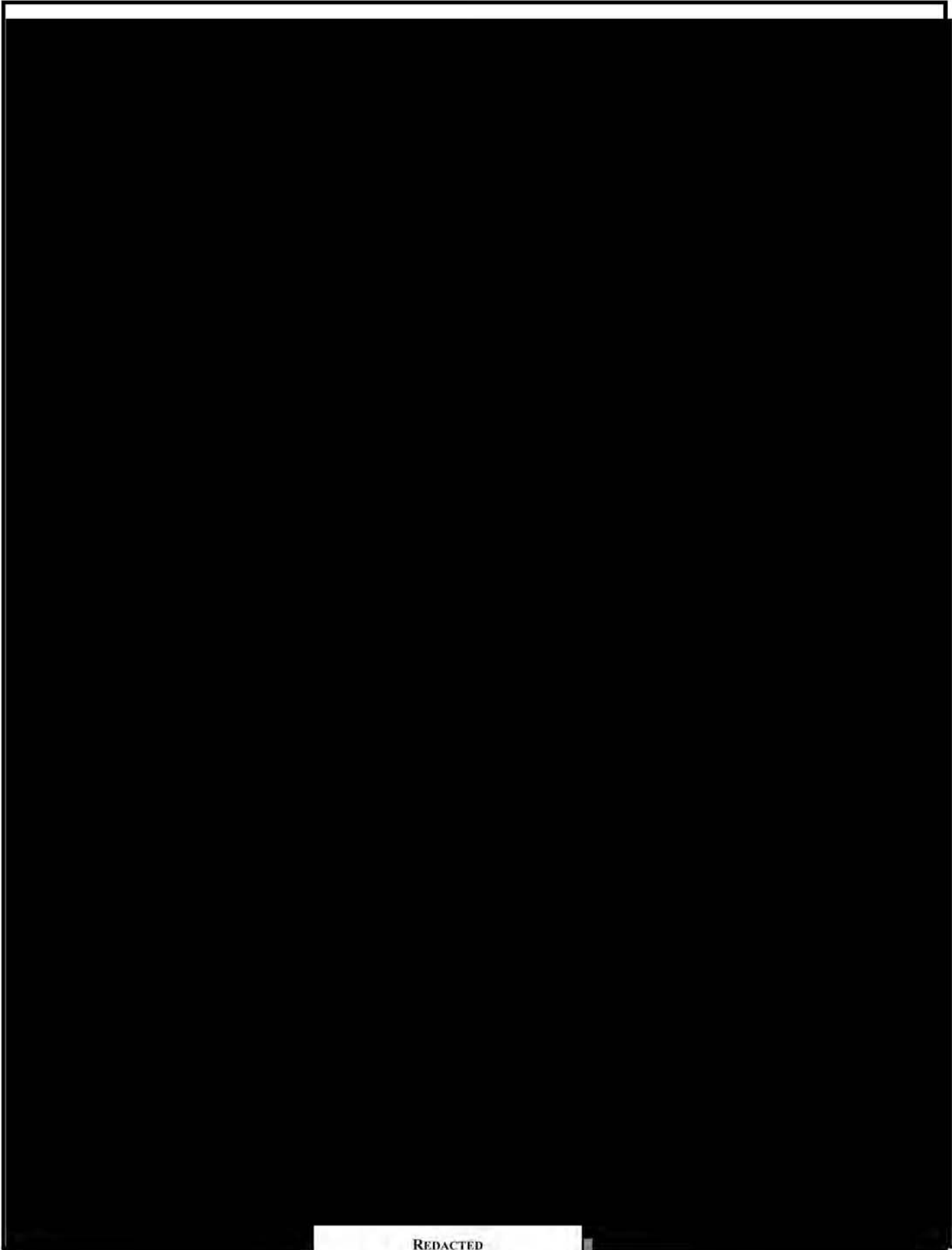




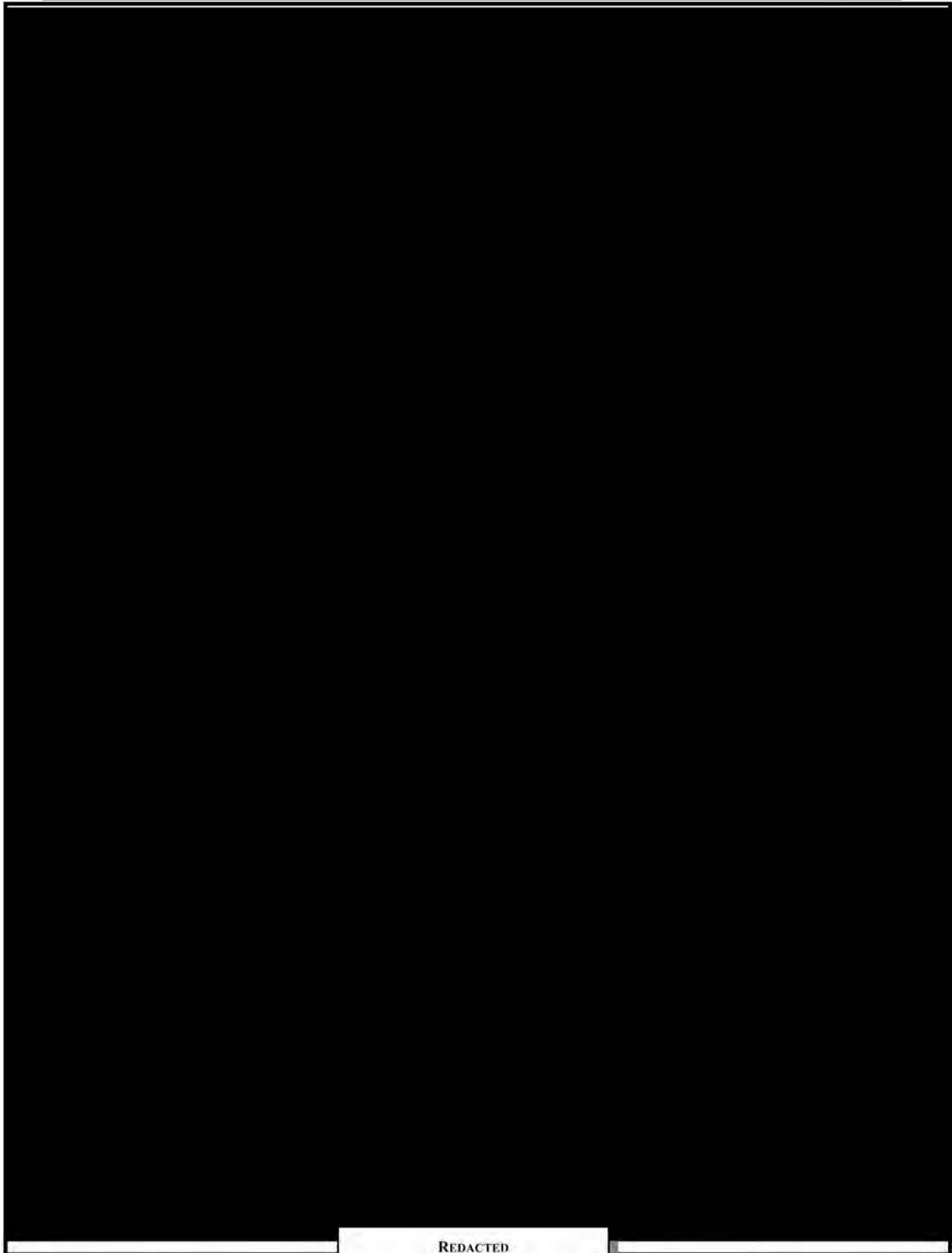
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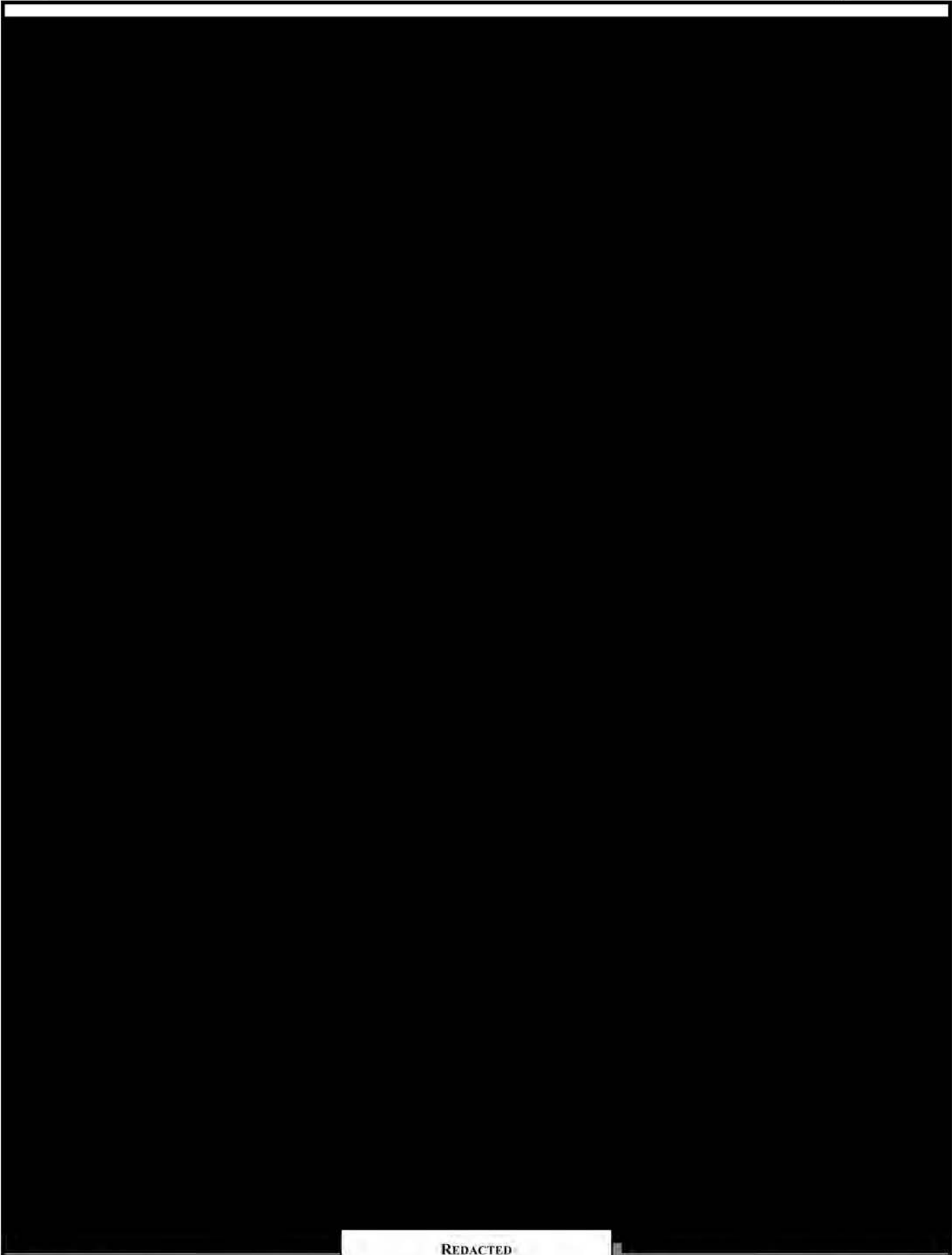




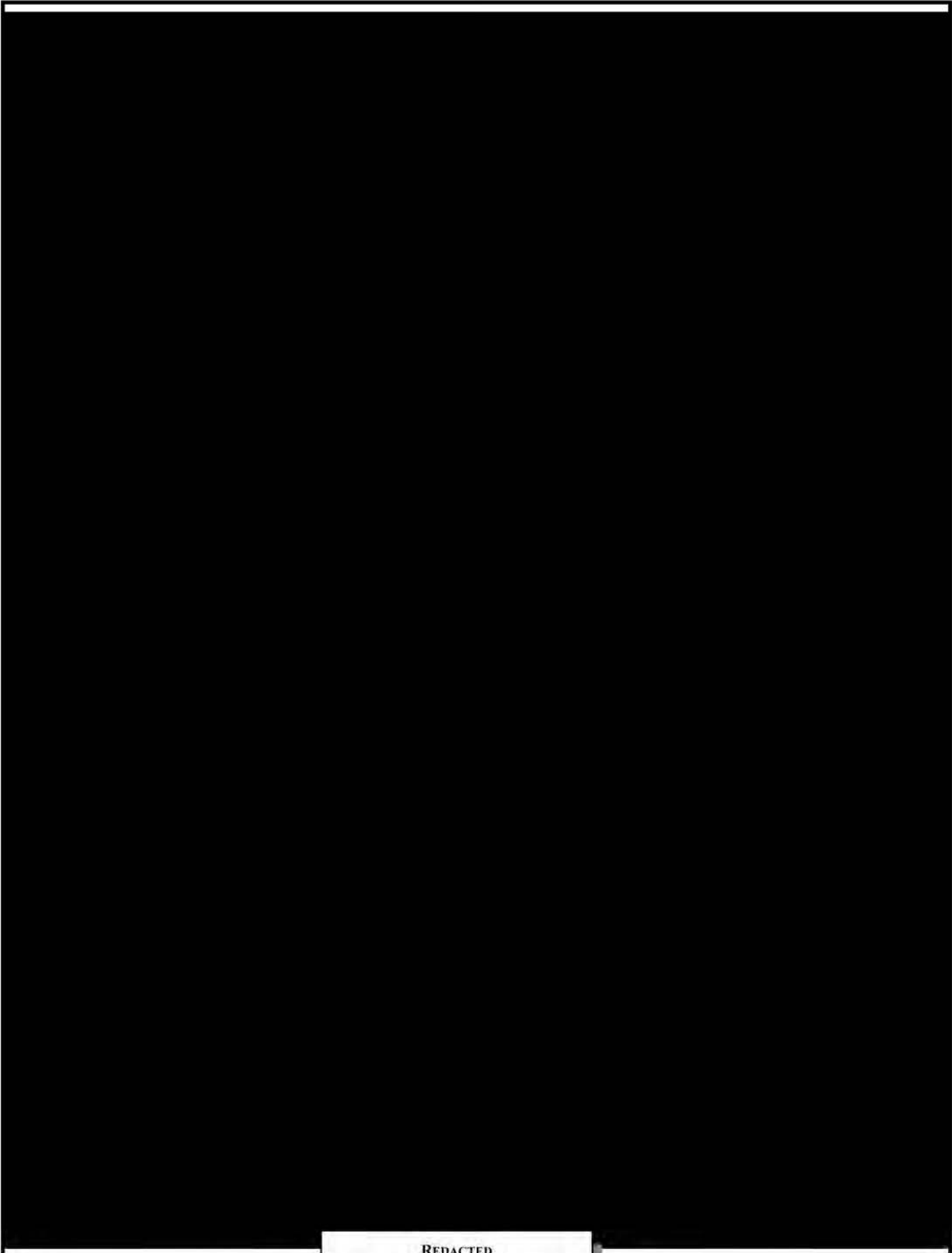
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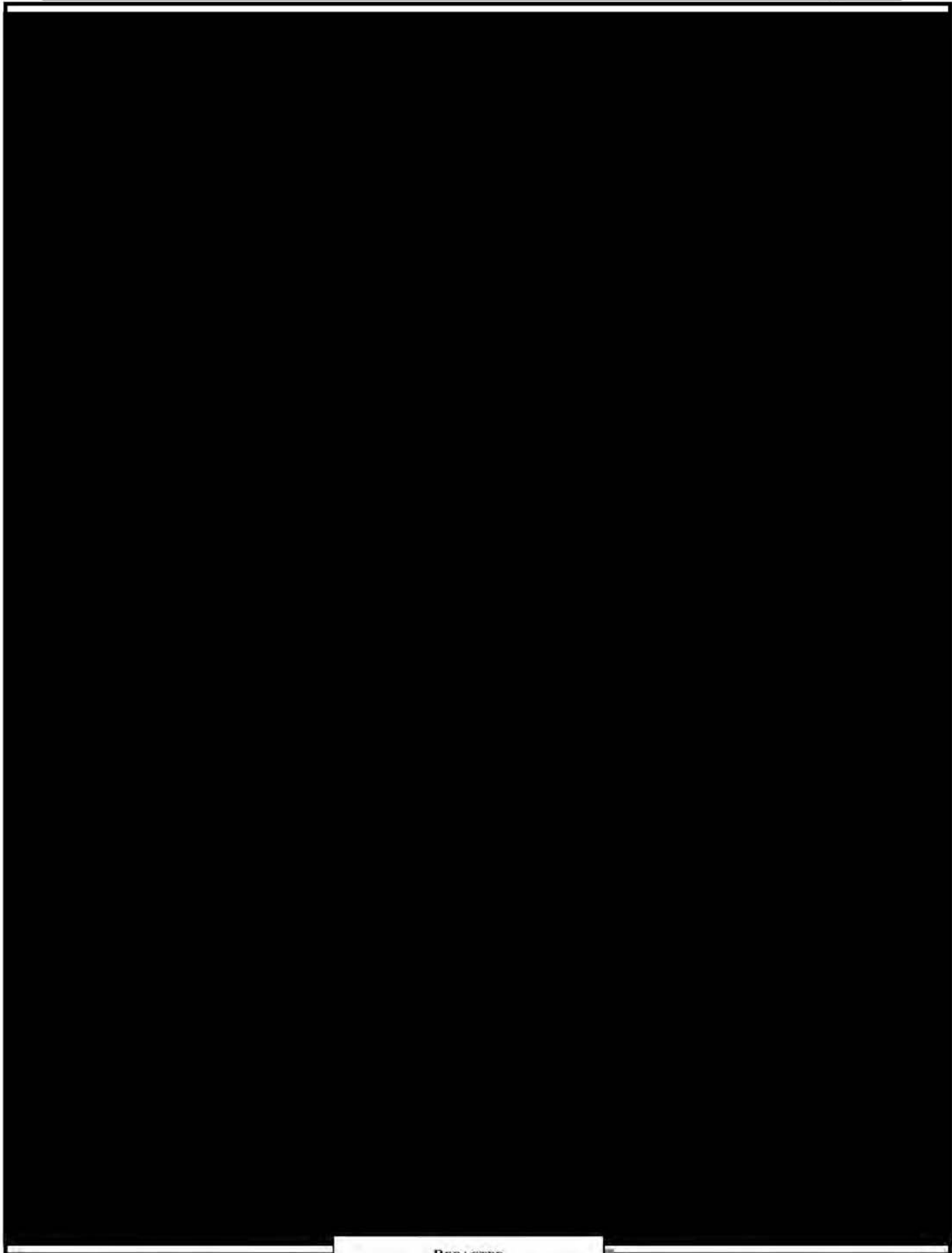
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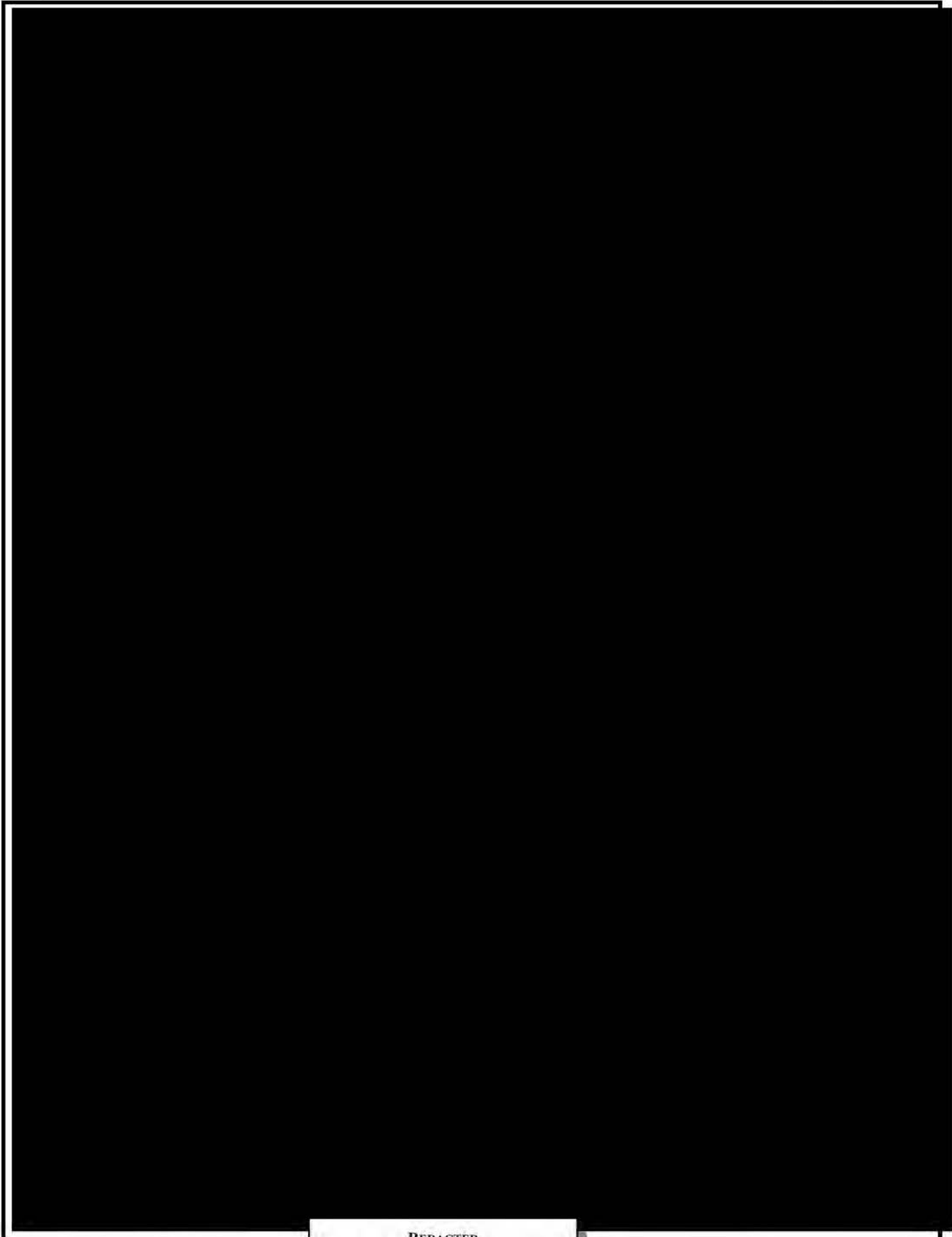


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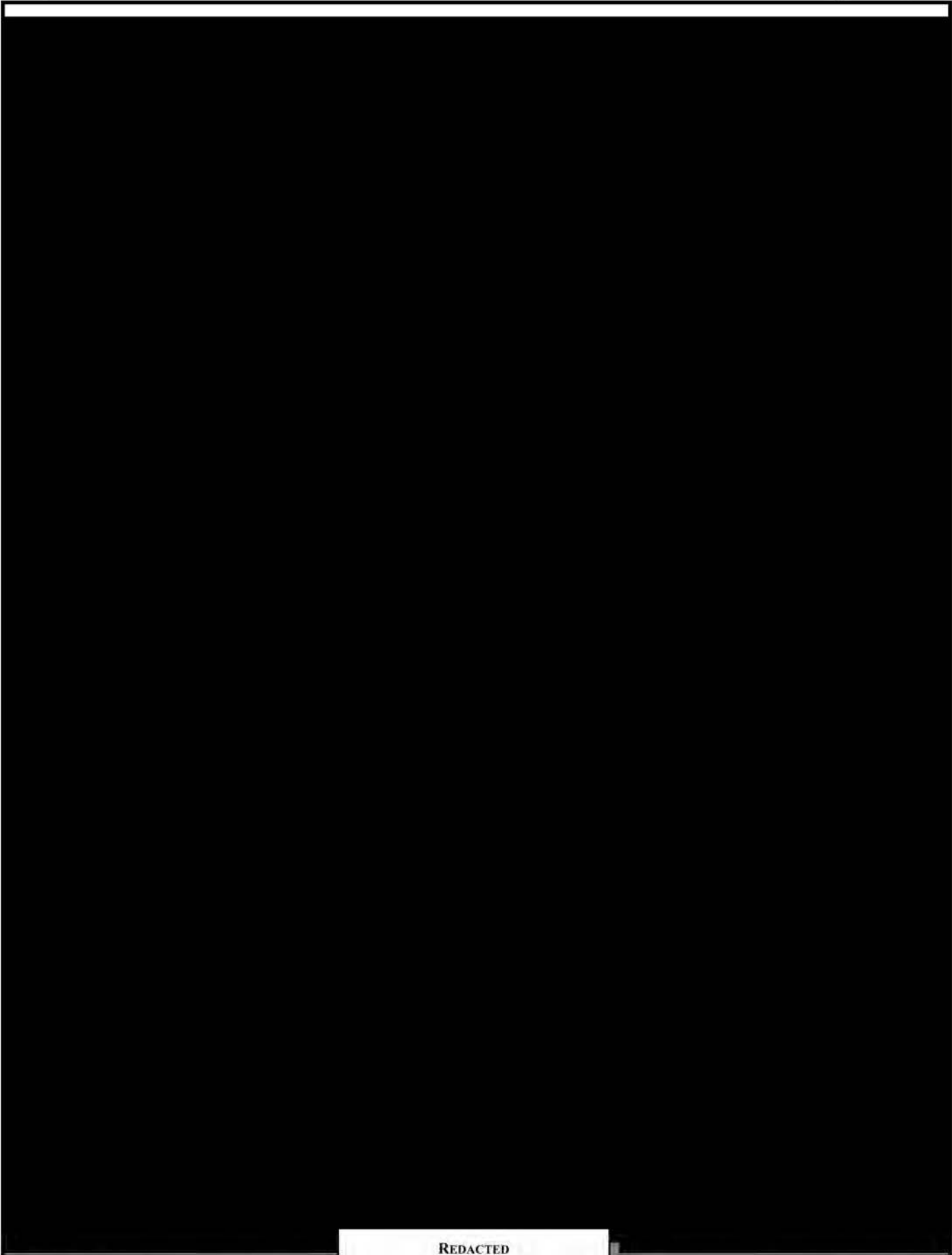


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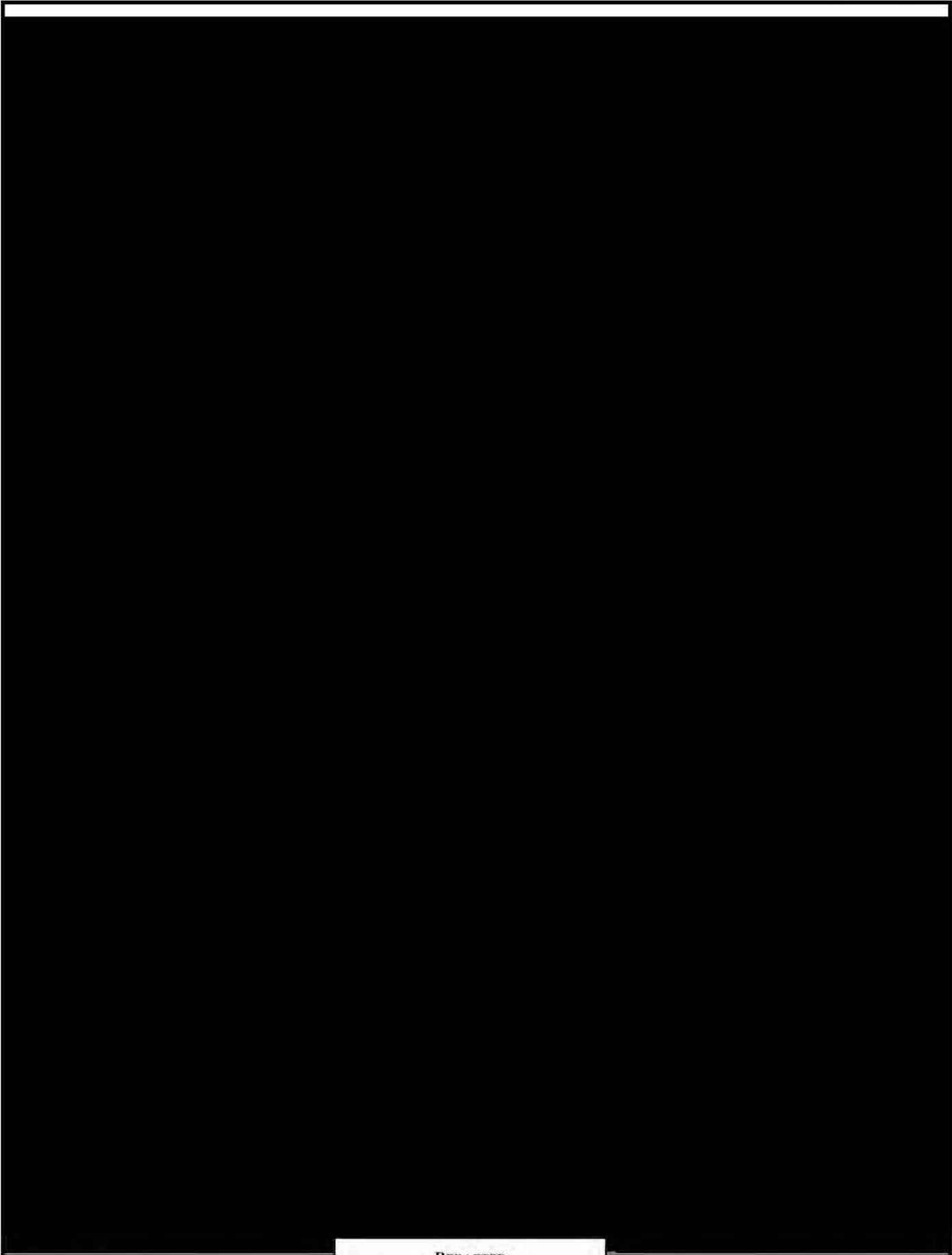


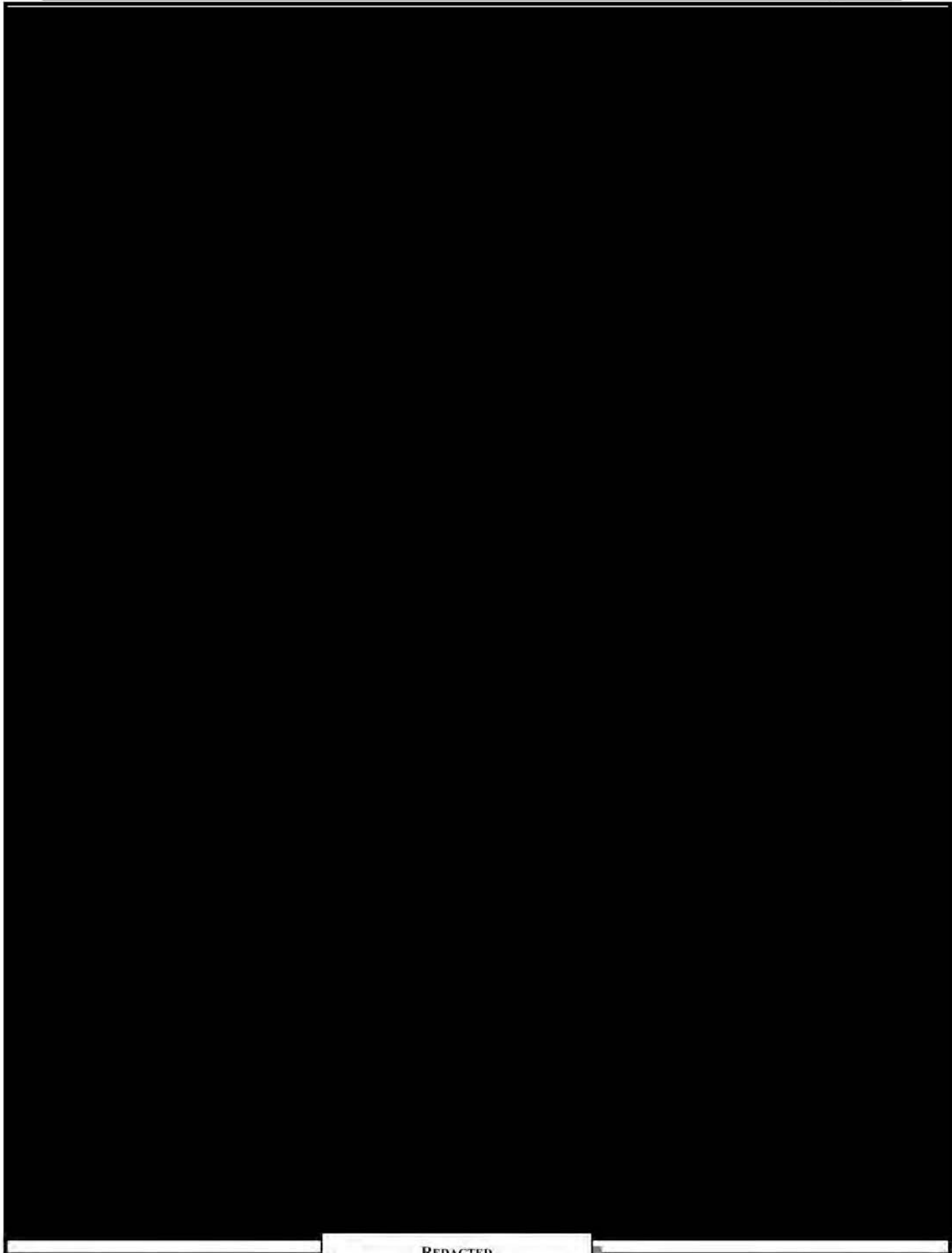


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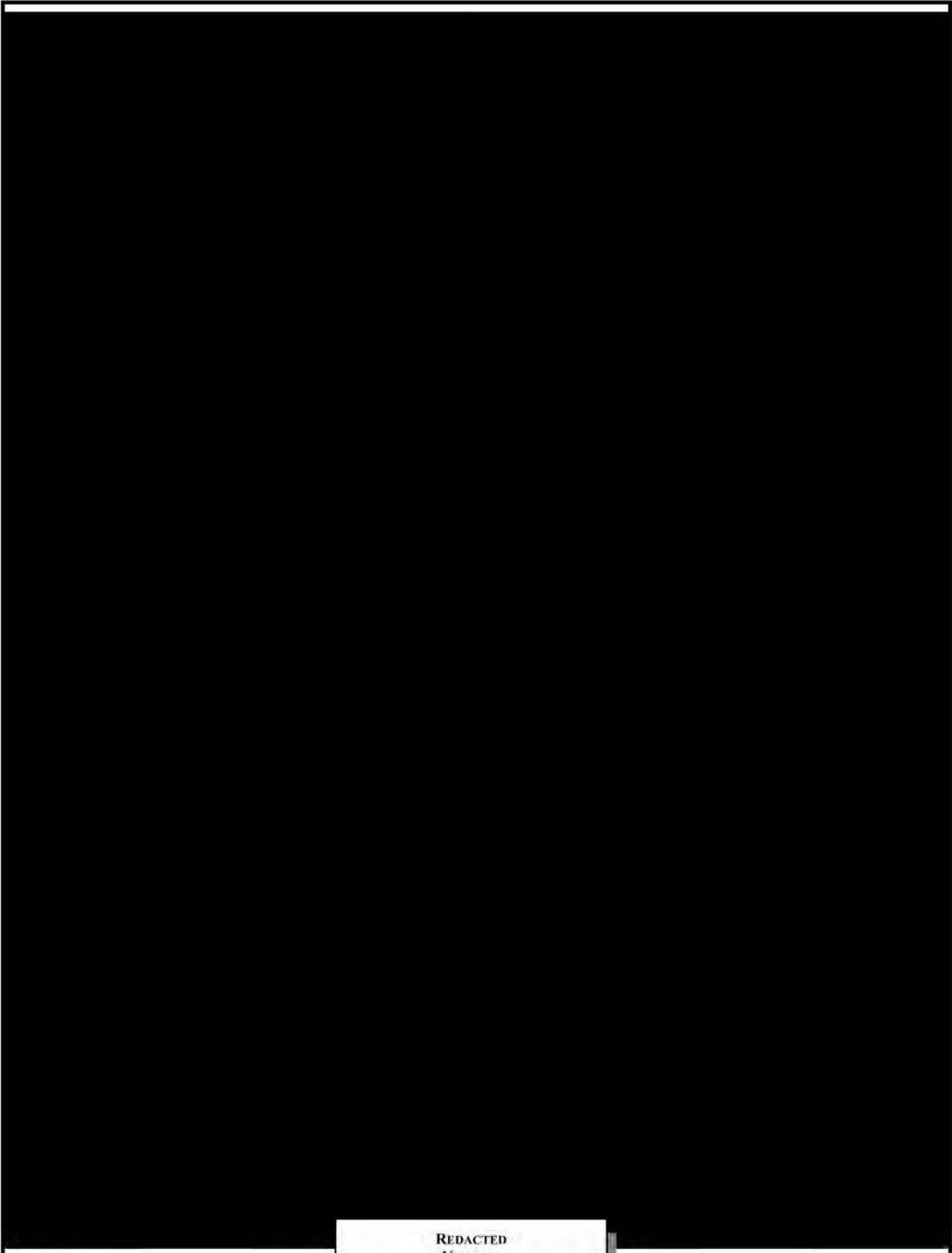




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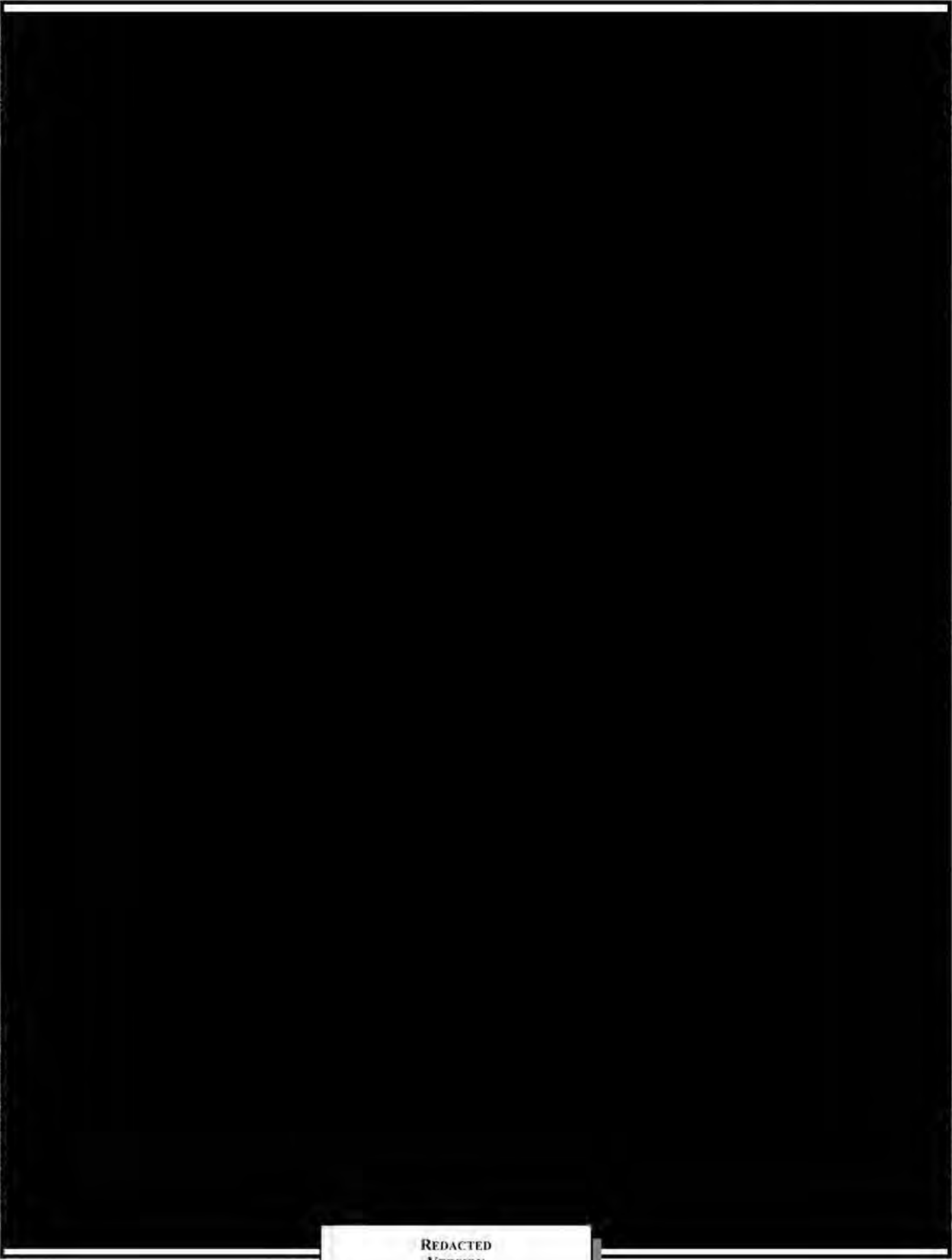
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Appendix D

Wind Resource Assessment

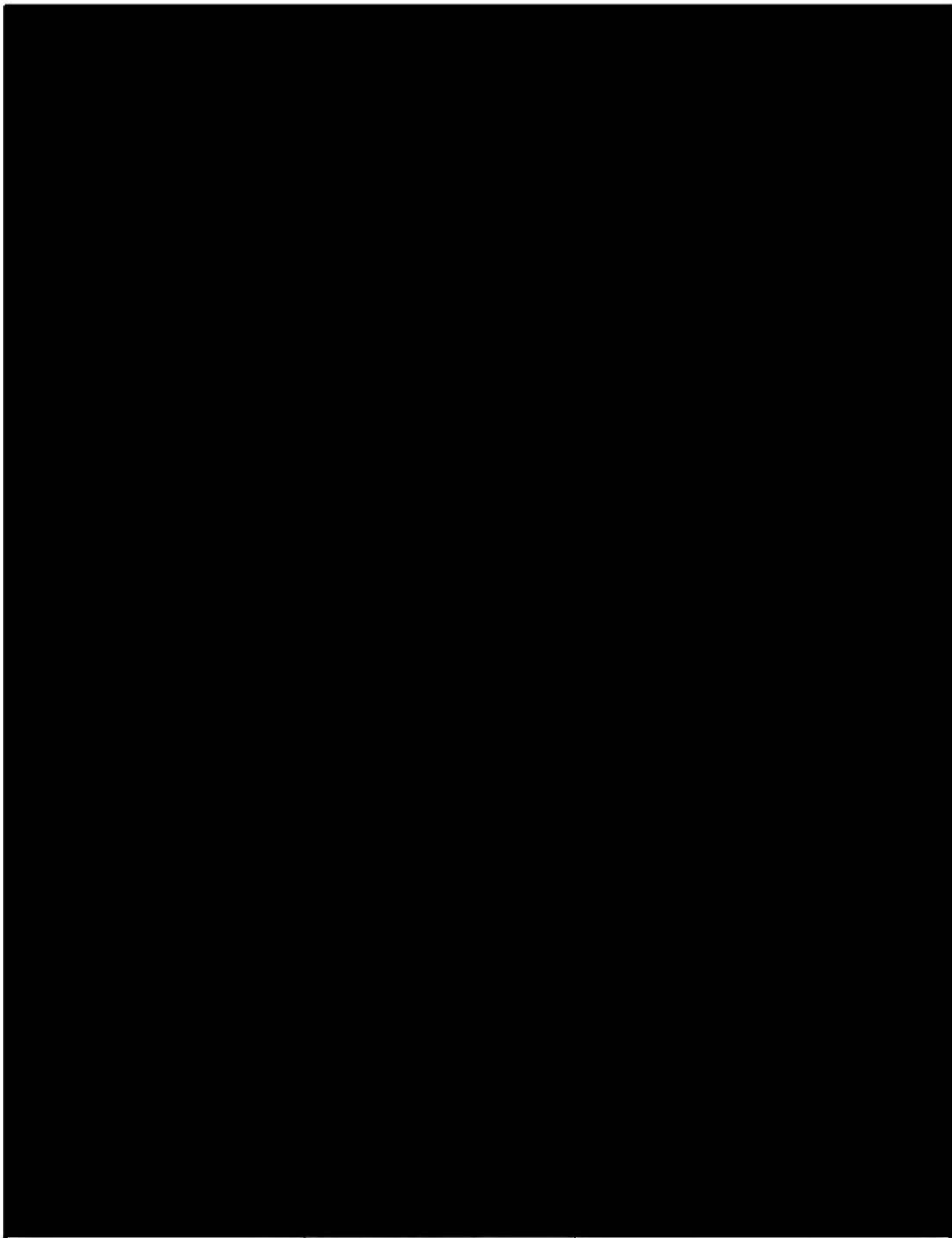


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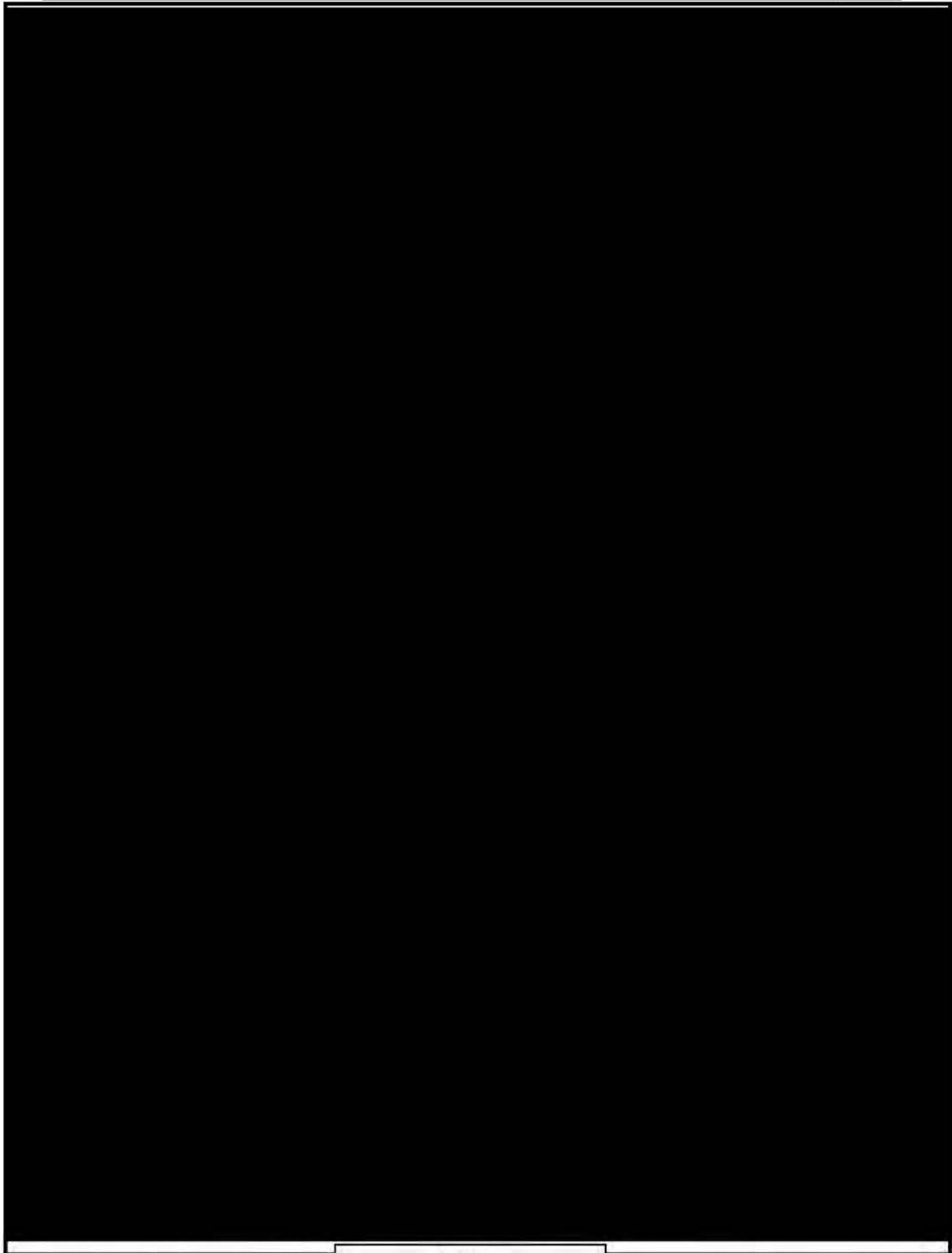
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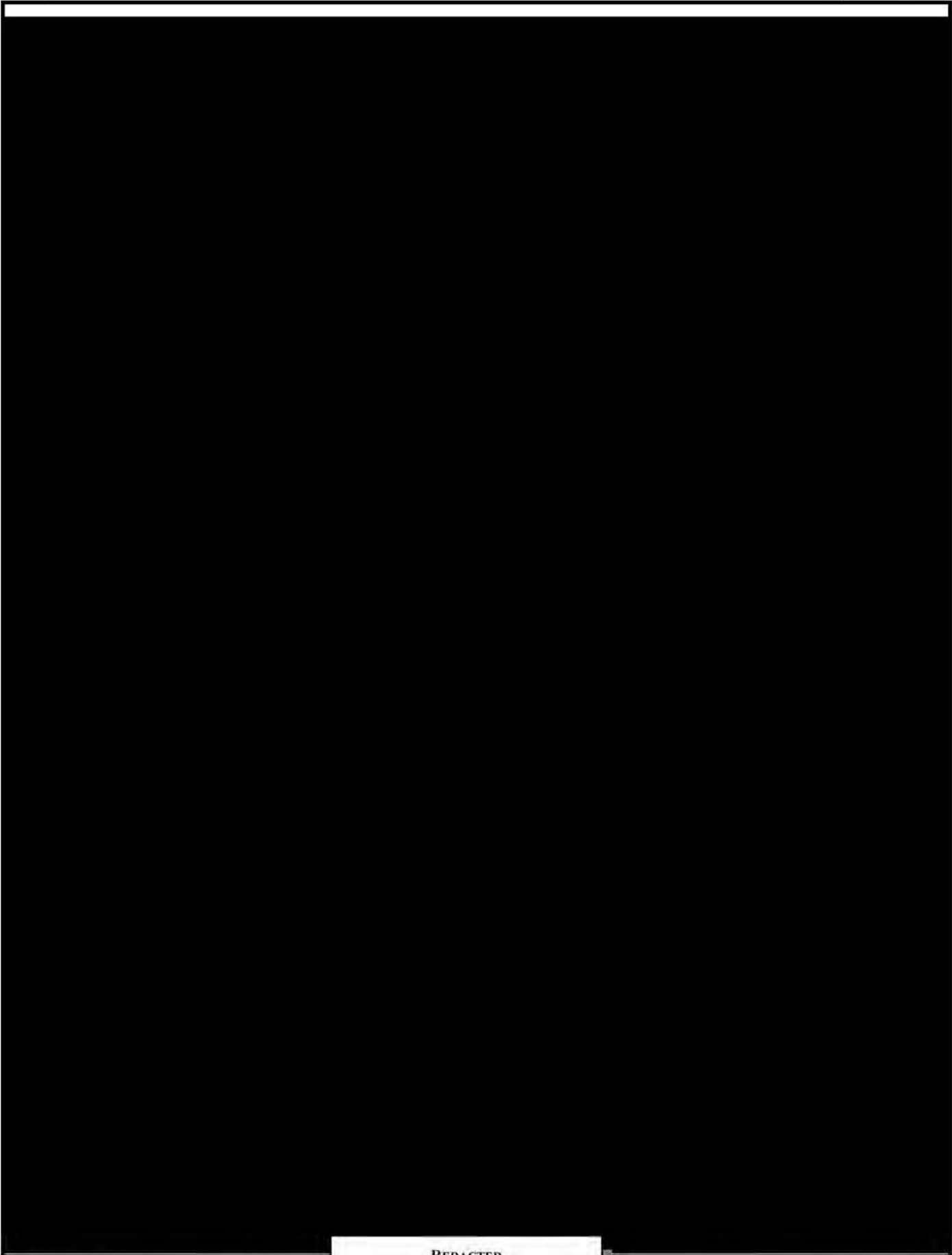
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Puget Sound Energy

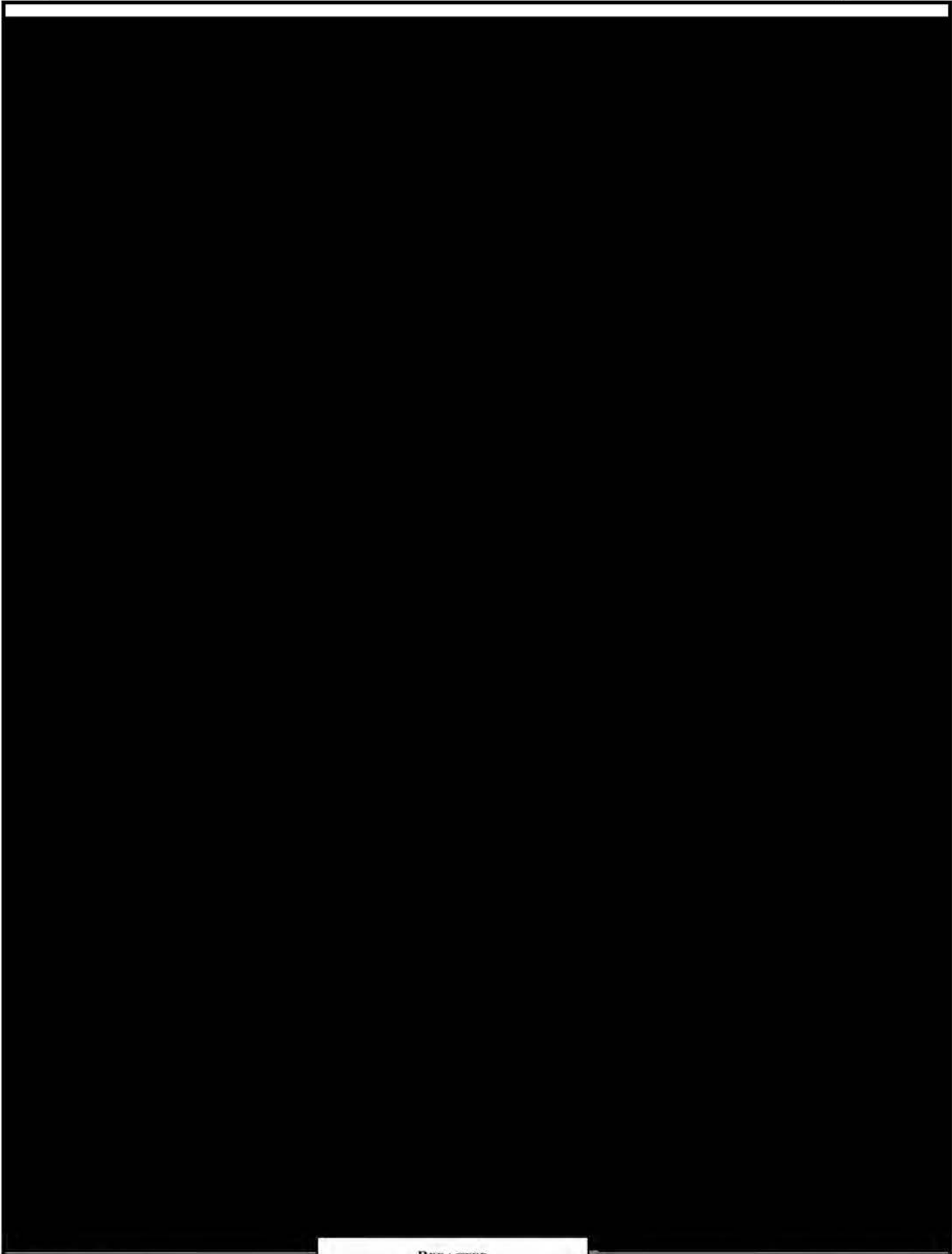


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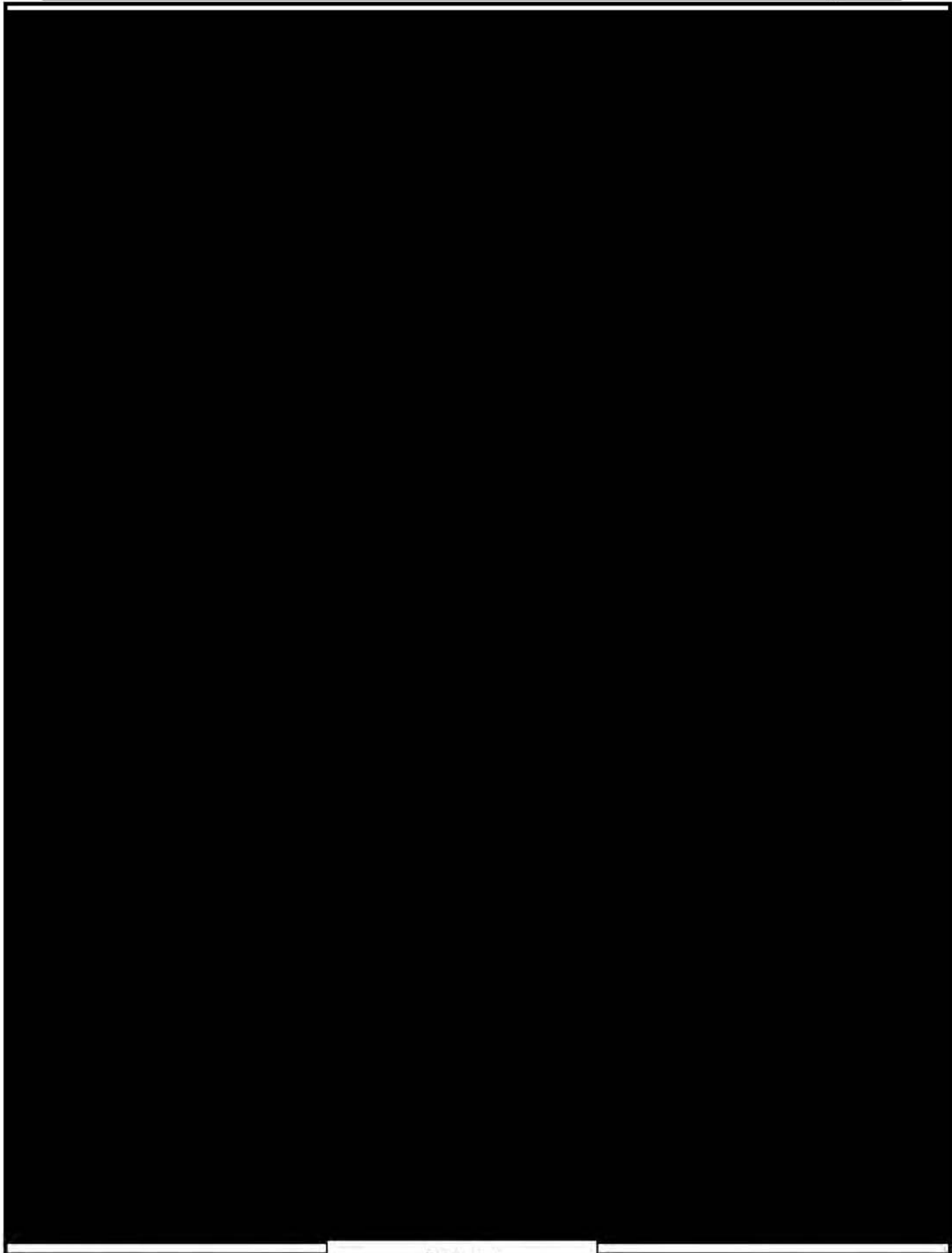


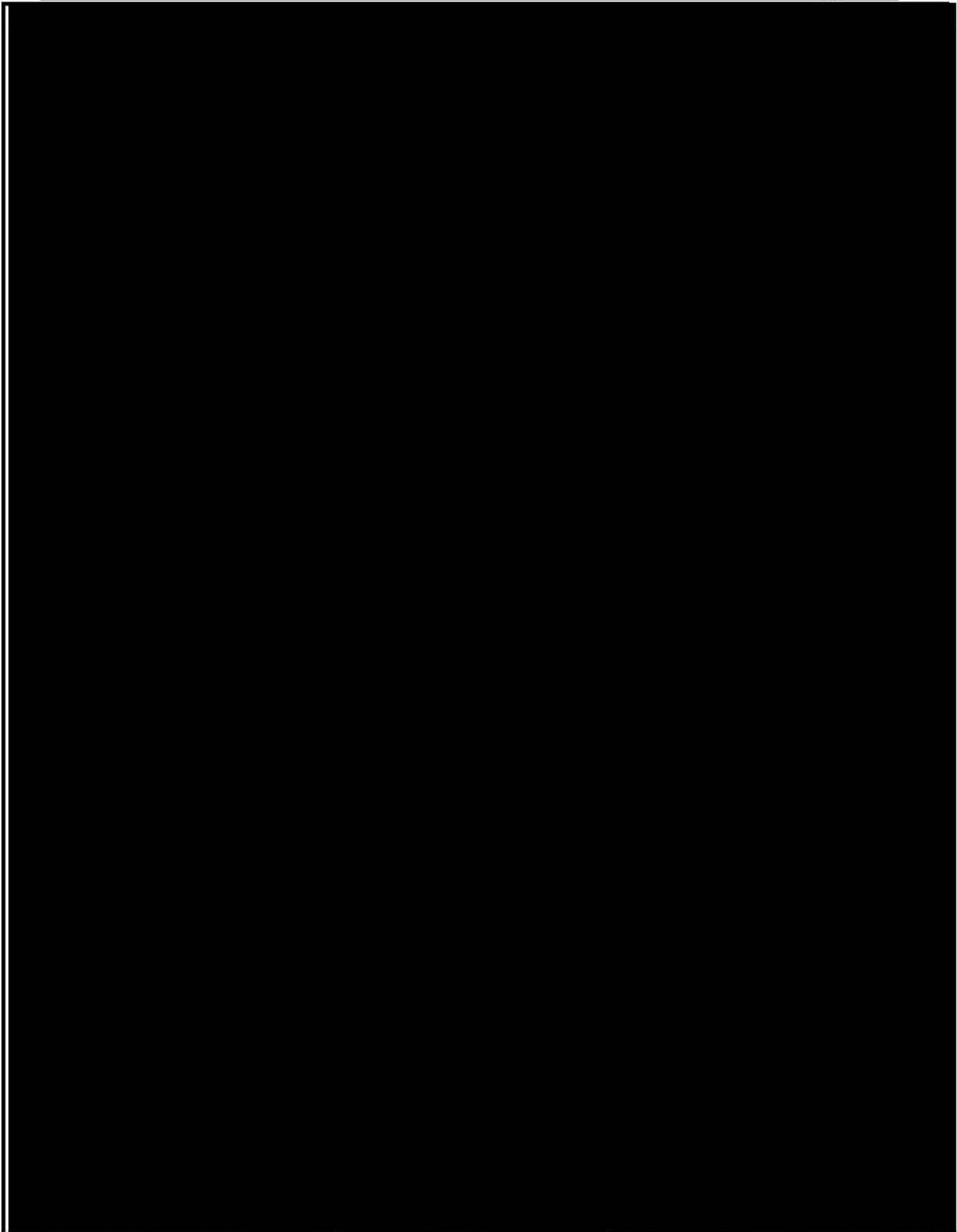


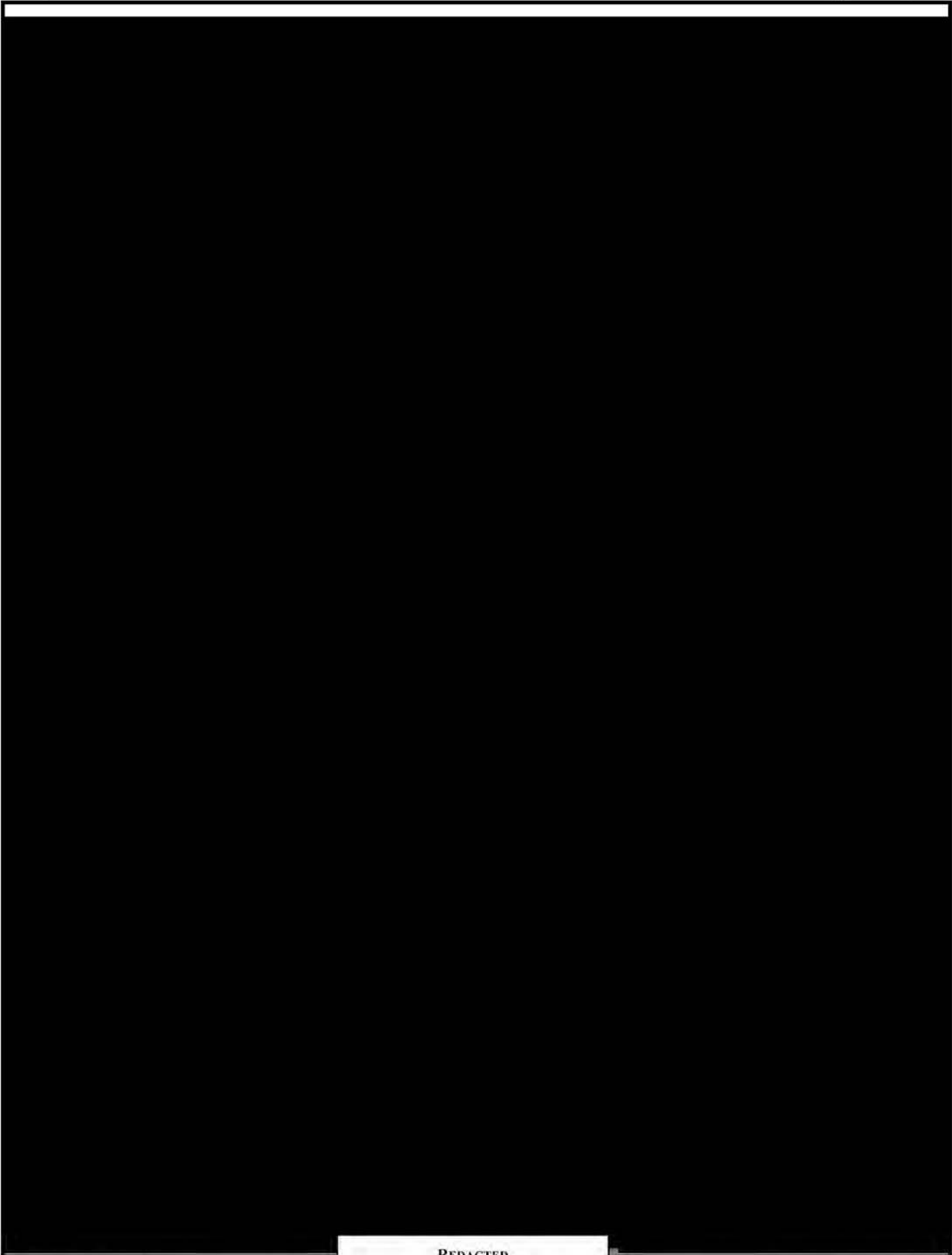
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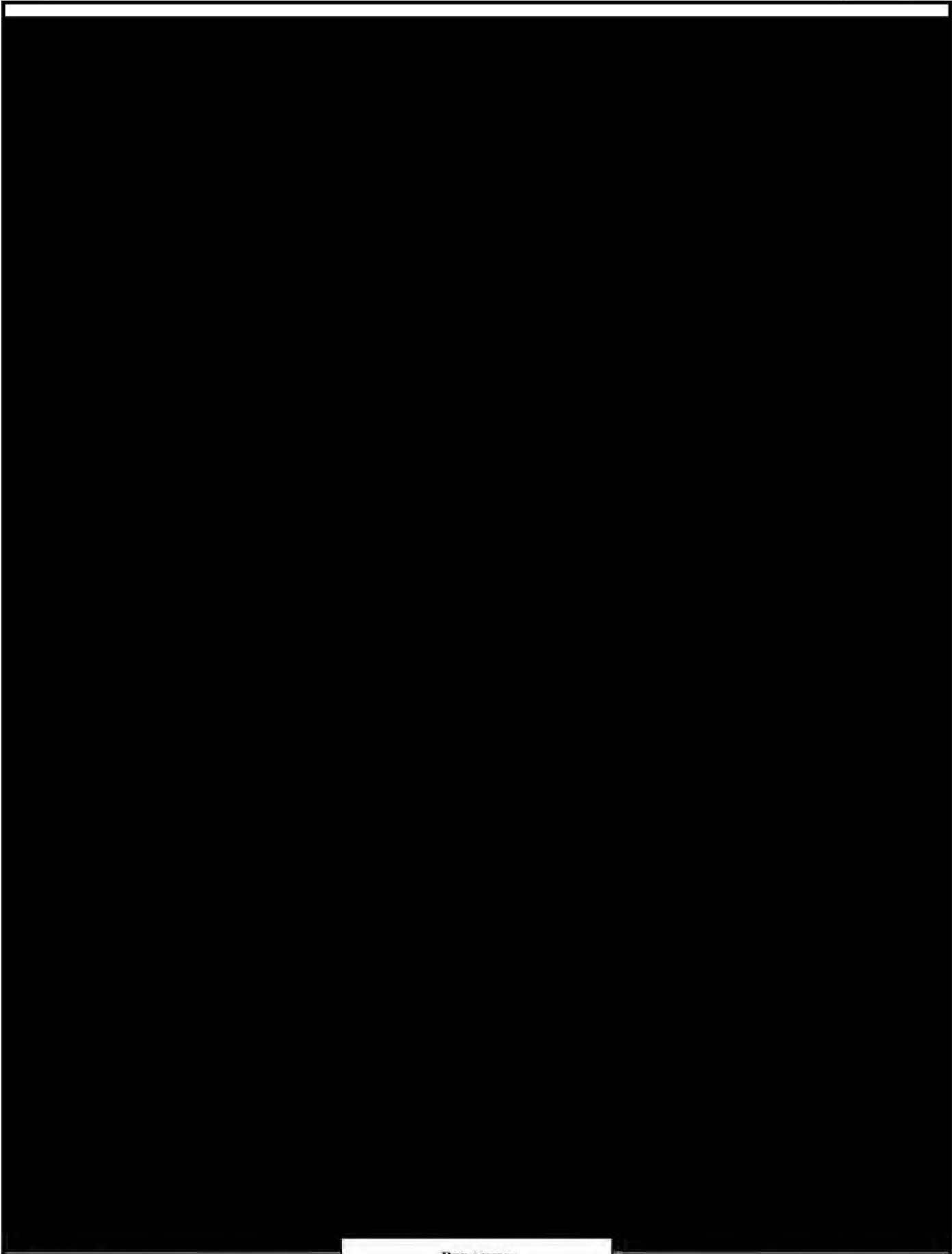
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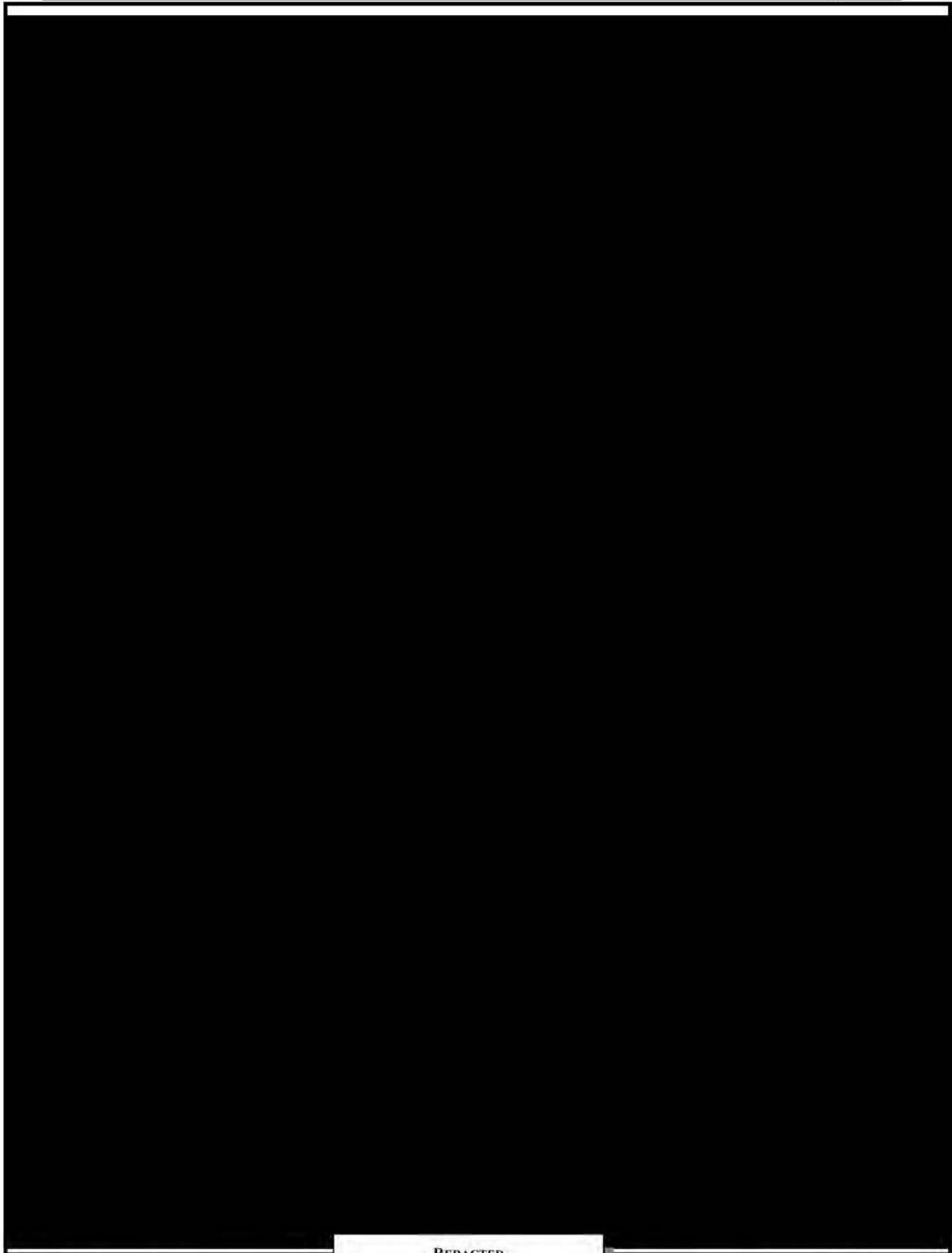


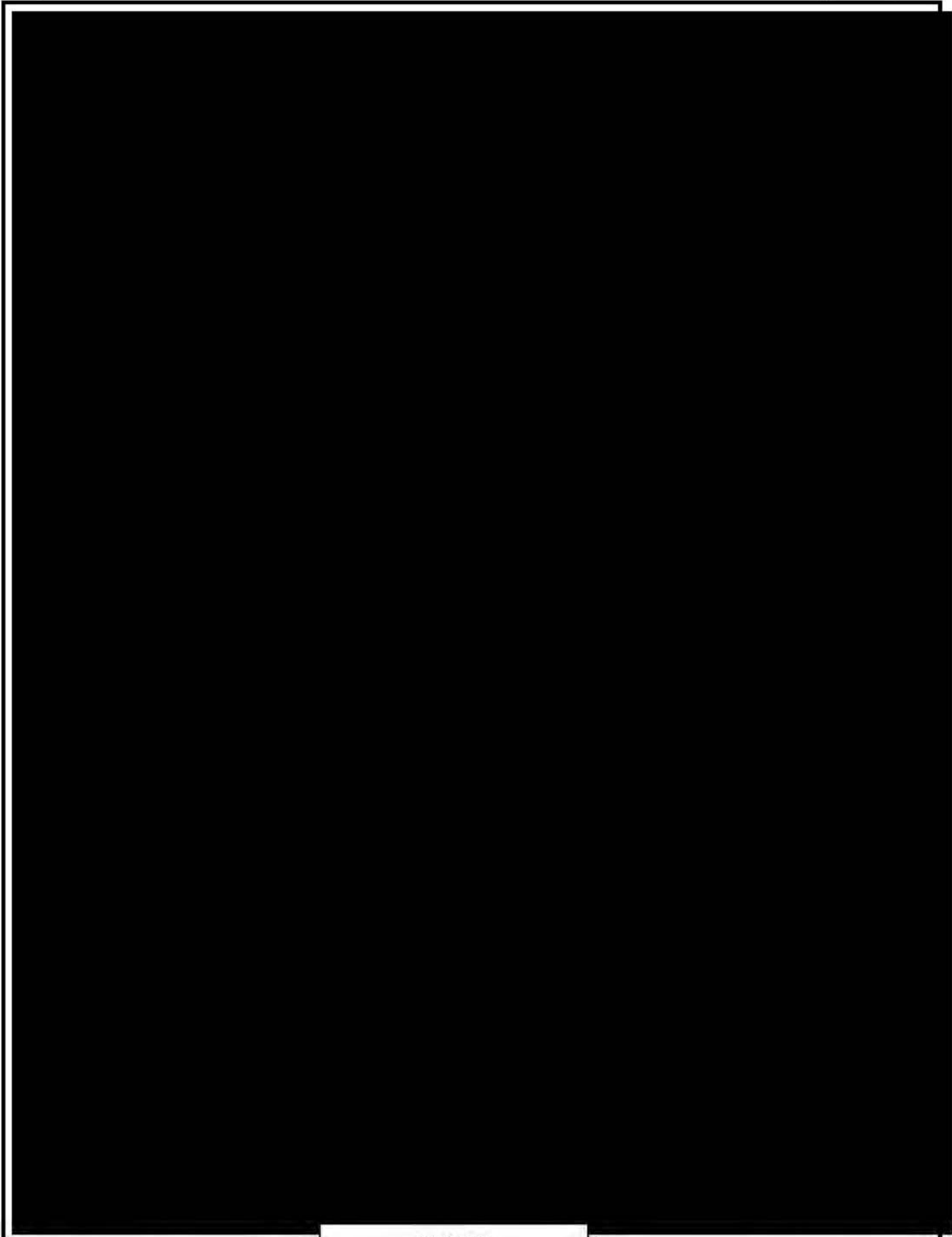


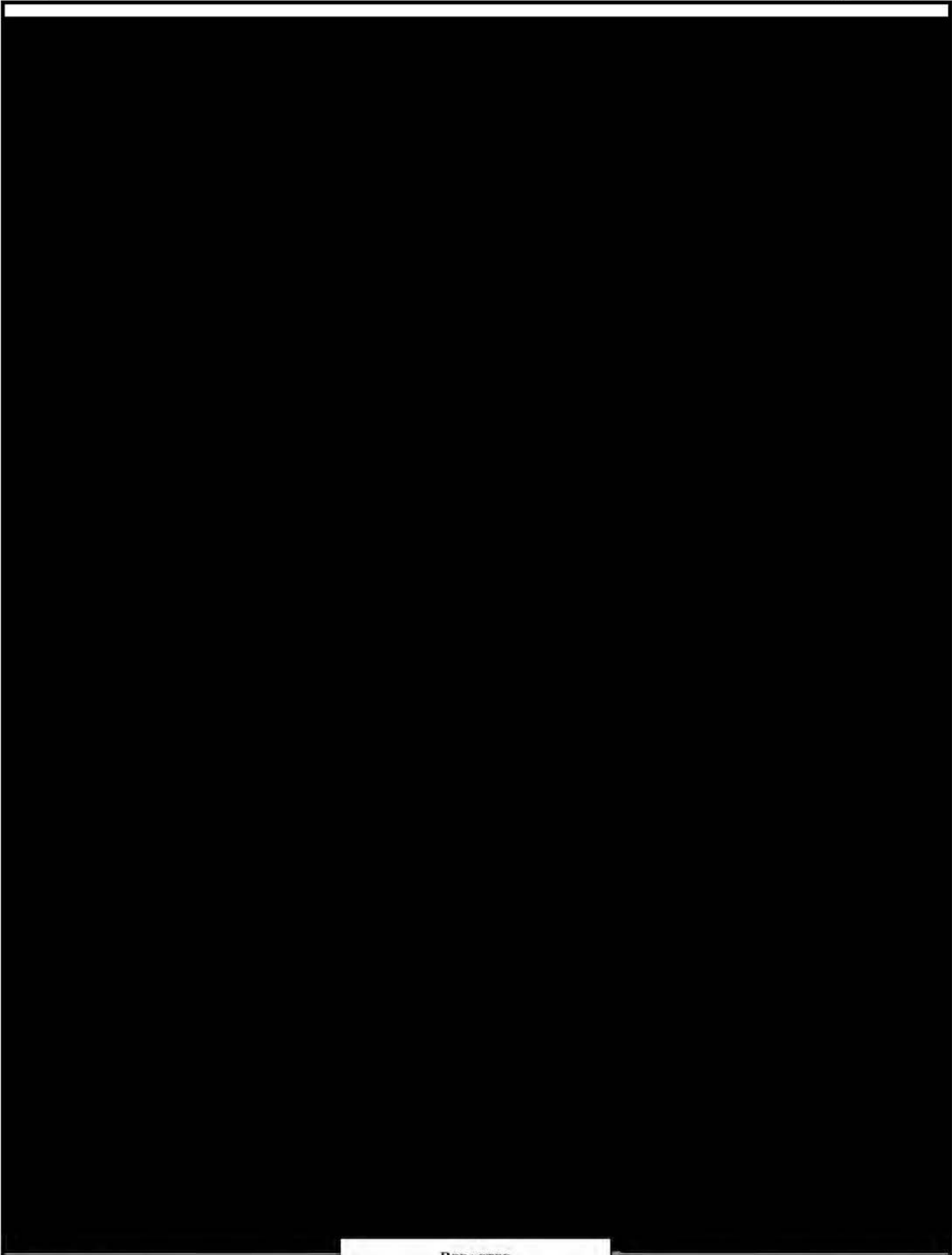


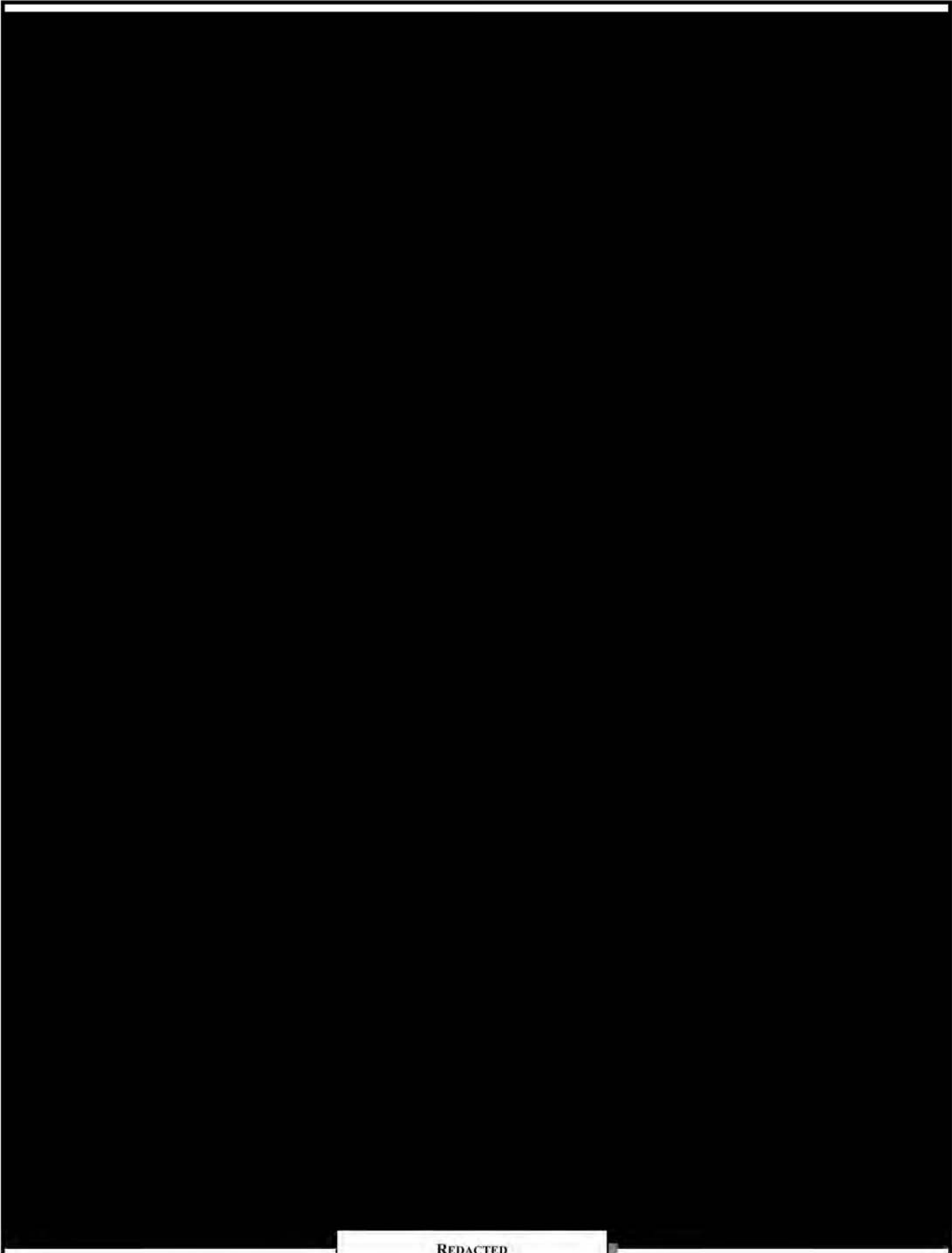
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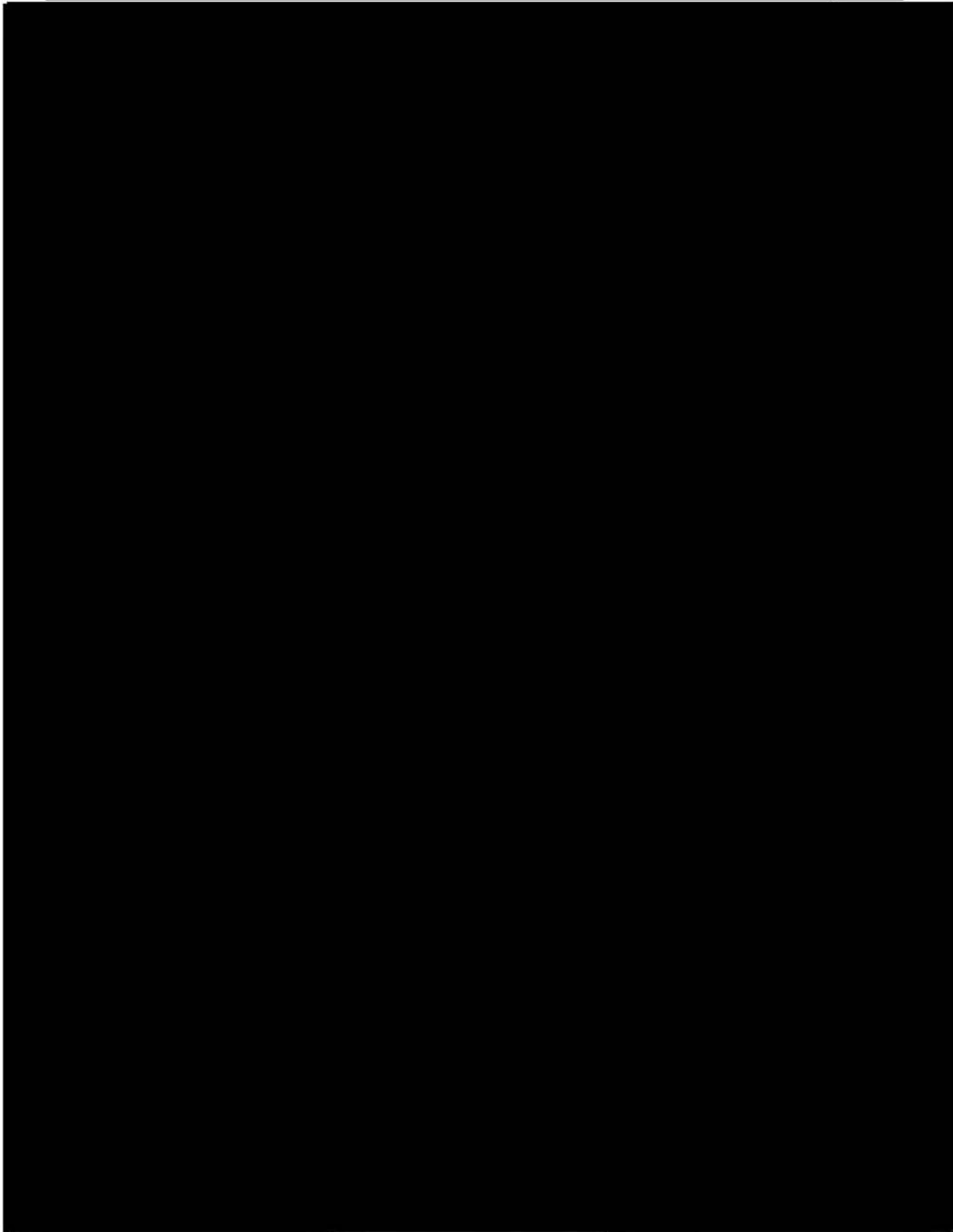




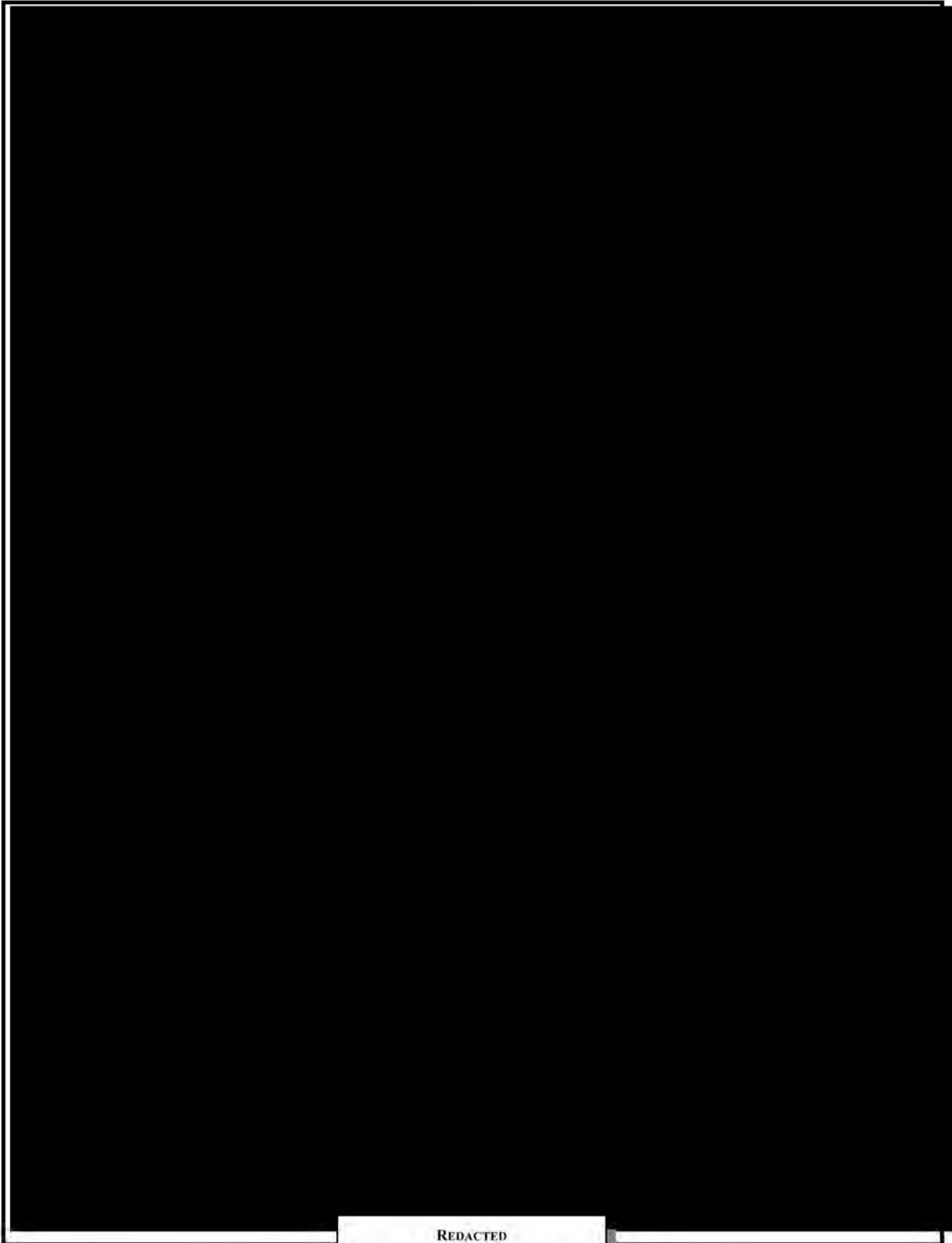




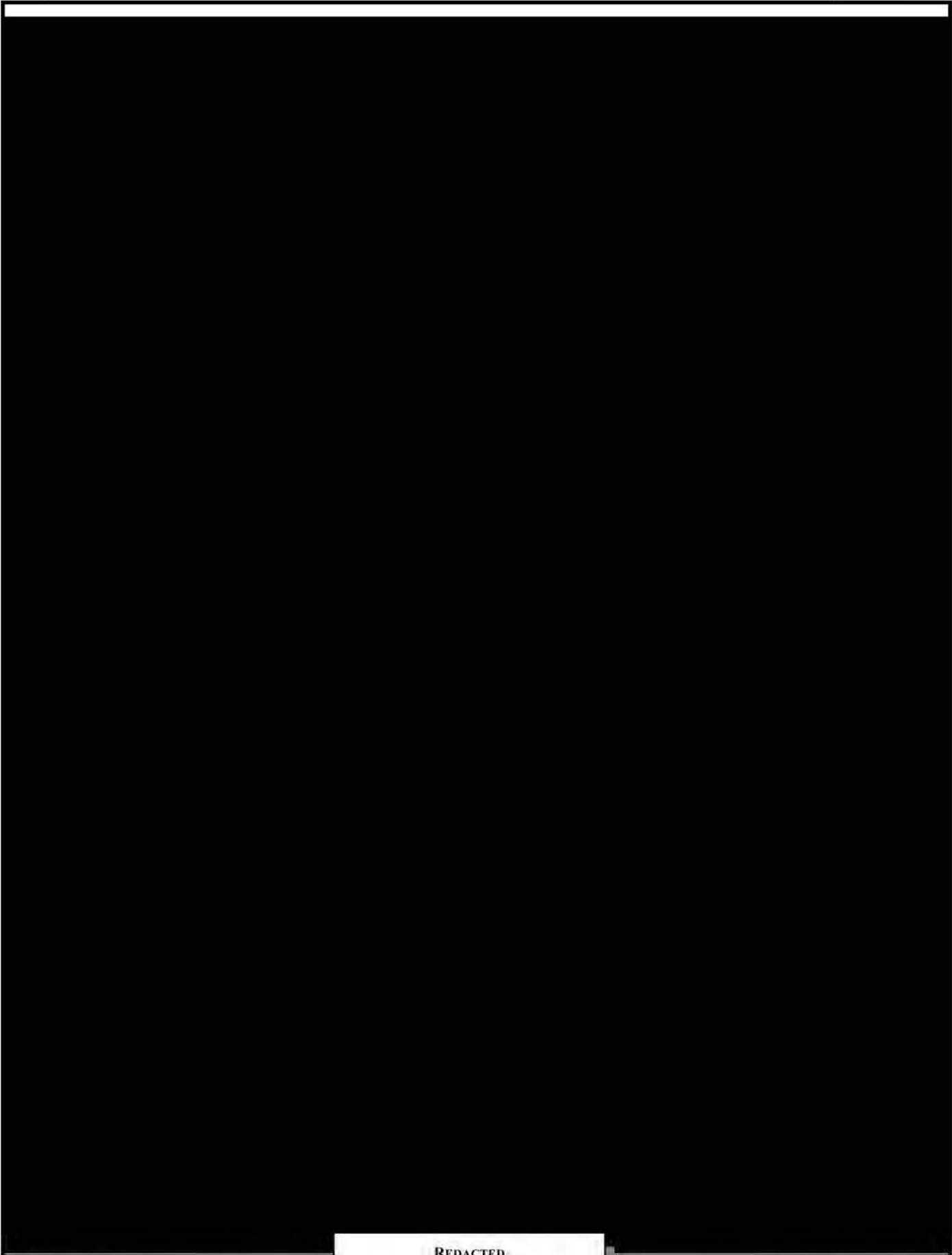
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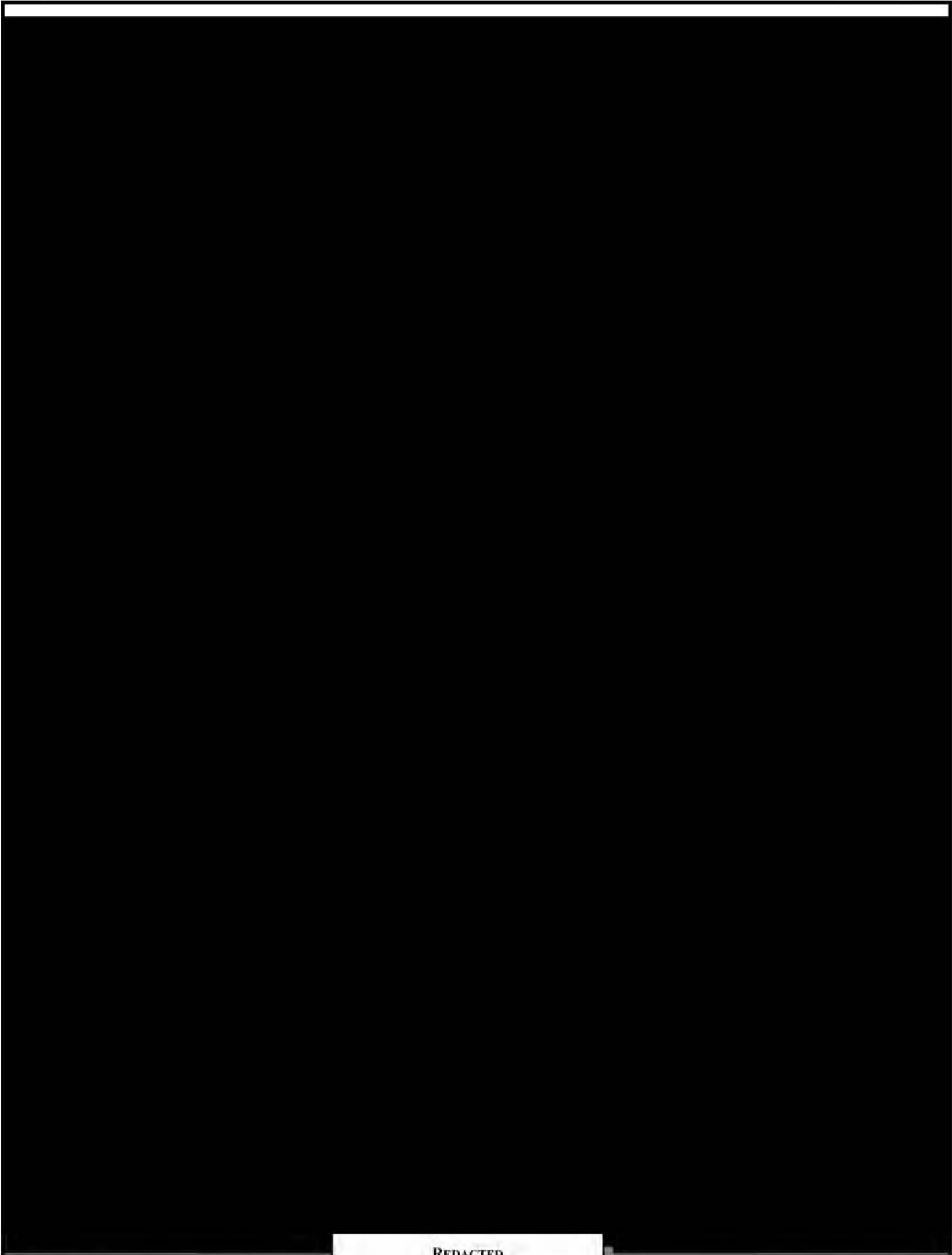
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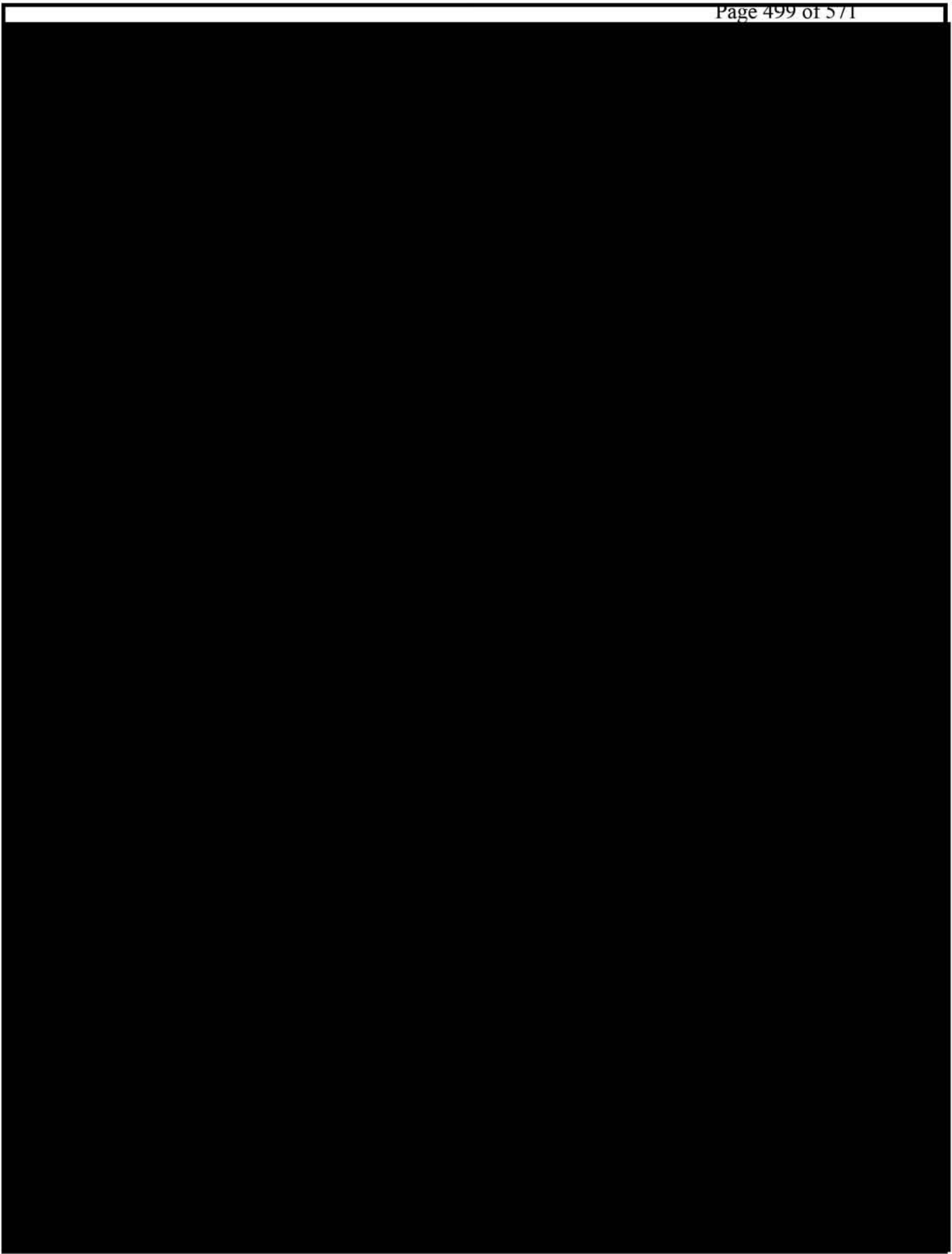
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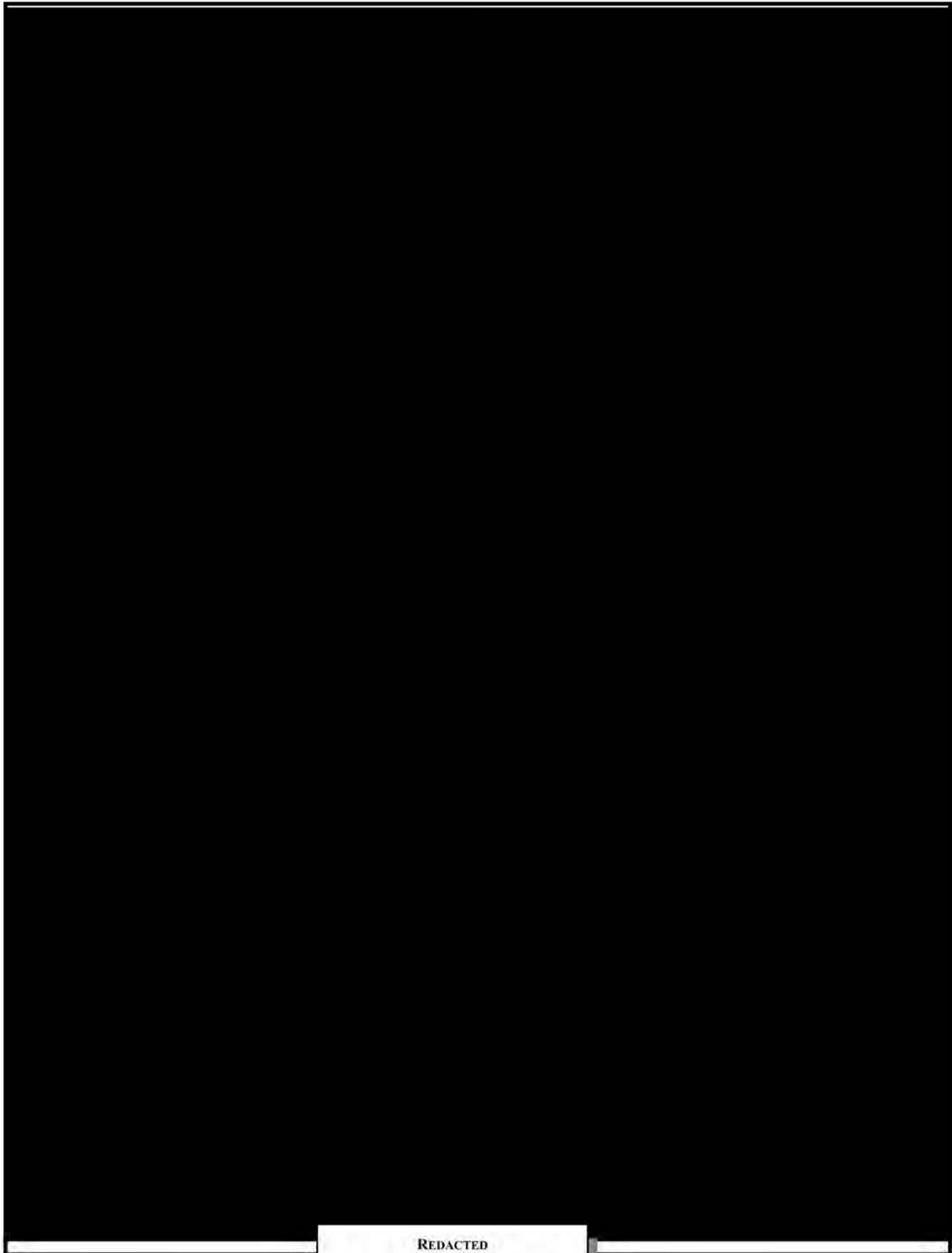
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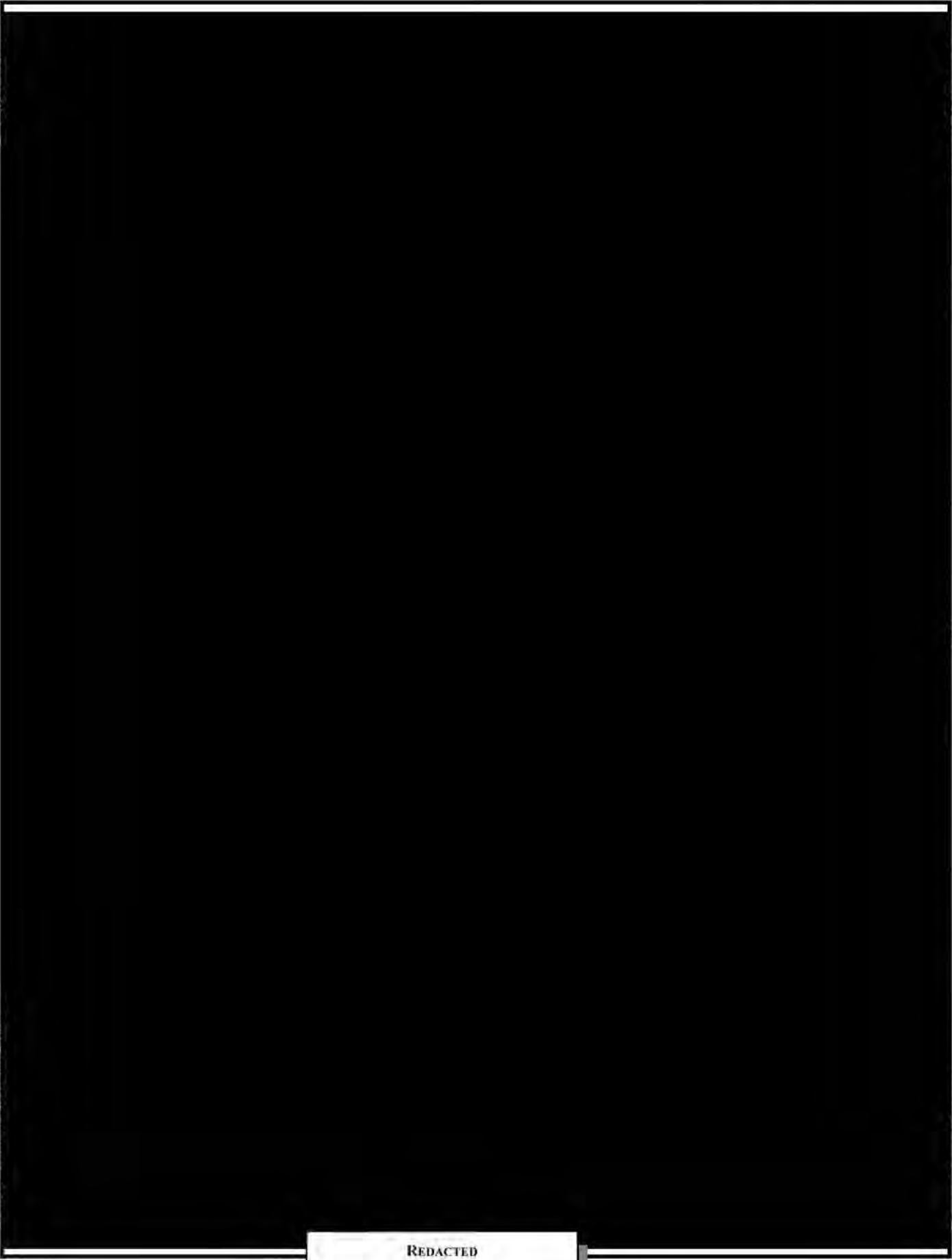
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Appendix H

Wind Resource Assessment



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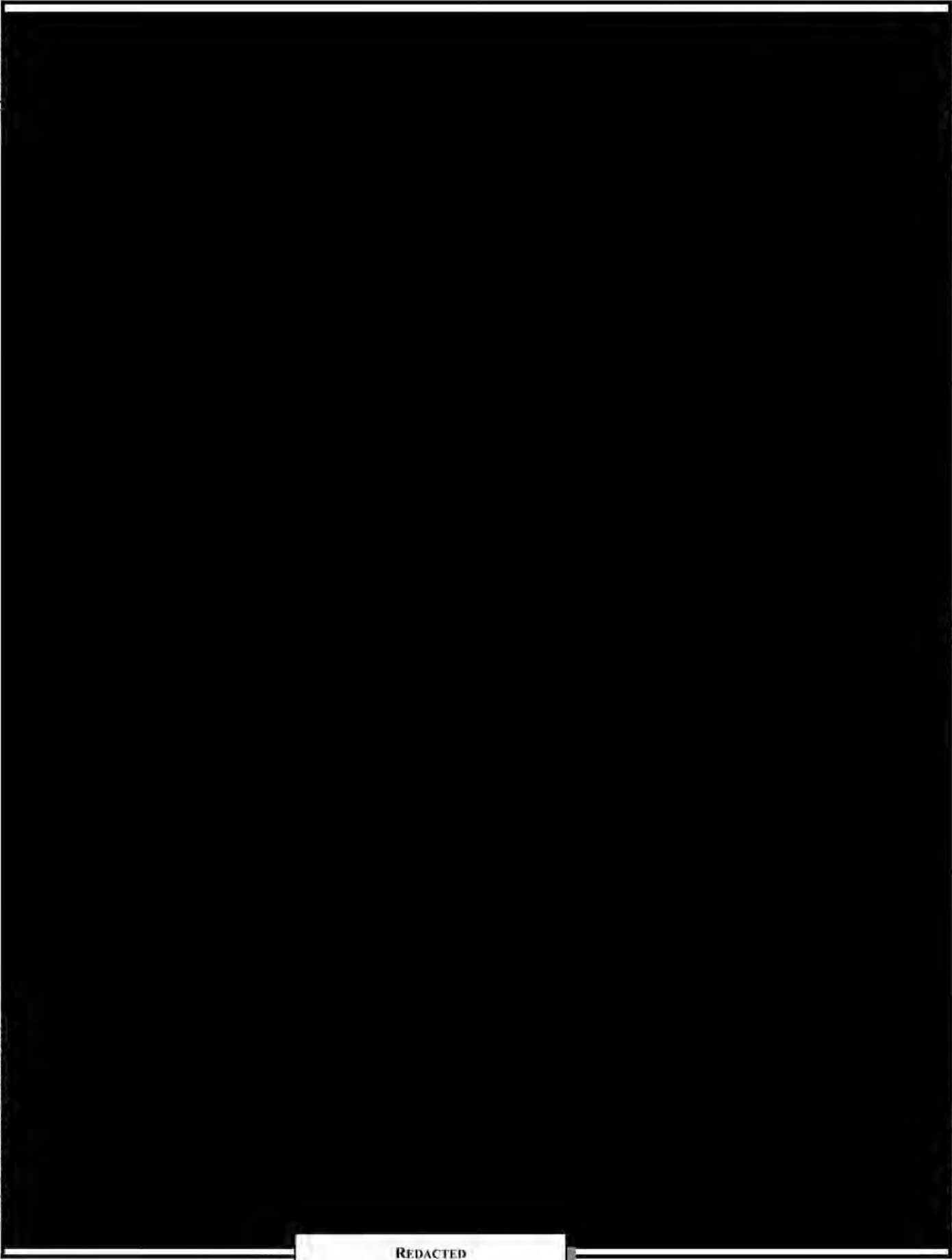
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Puget Sound Energy

Appendix H

Wind Resource Assessment



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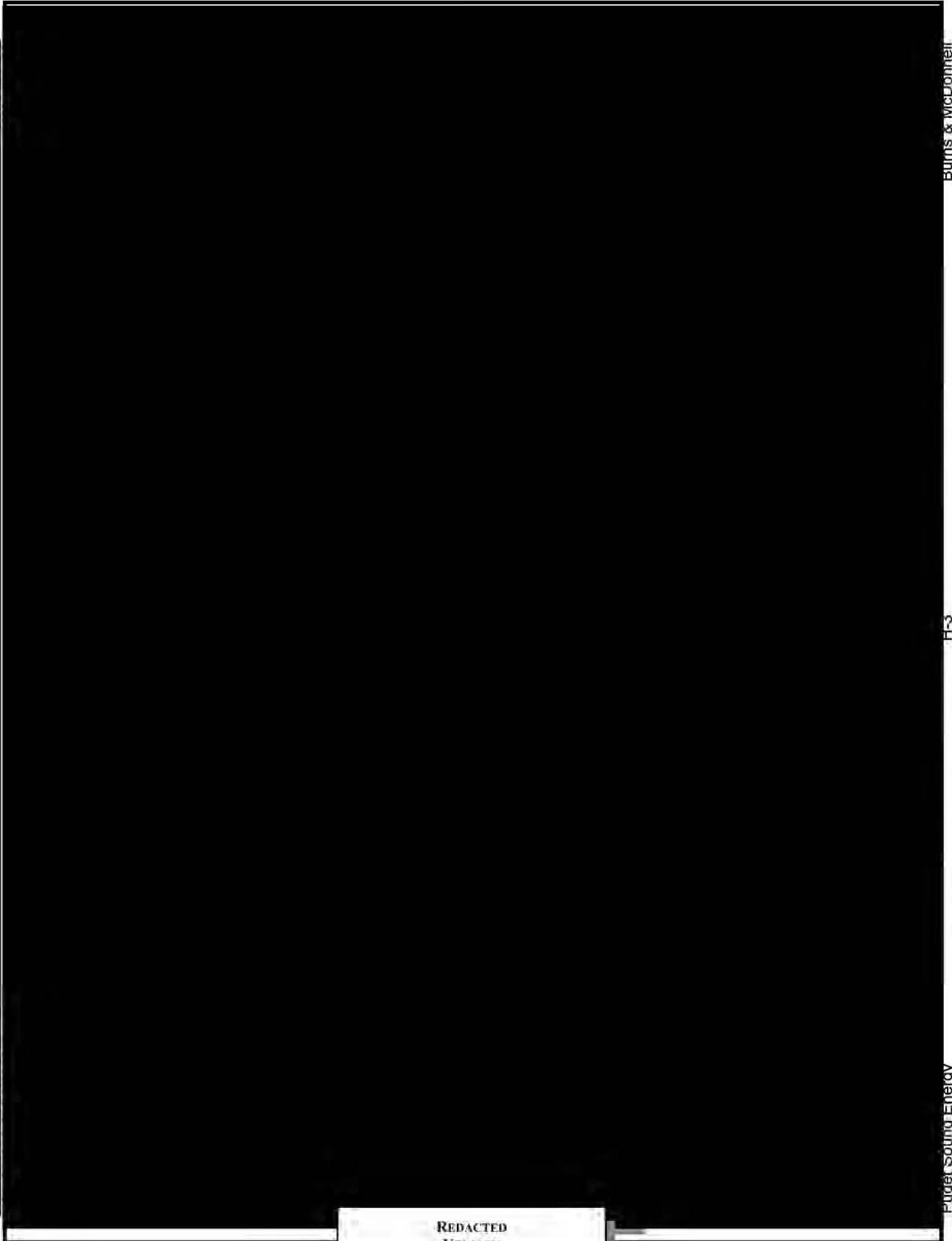
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Puget Sound Energy

Appendix H

Wind Resource Assessment



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Puget Sound Energy

Exhibit Q

Interconnection, Transmission and Integration

Exhibit Q Transmission and Interconnection Plan

All phases of the 1250 megawatt (“MW”) Lower Snake River Wind Project, Phase I (“LSRWP, Phase I” or “Project”) will interconnect to the new Bonneville Power Administration (“BPA”) Central Ferry Substation. Central Ferry is located on the BPA transmission system, between the Little Goose and Lower Granite substations. Since PSE intends to use Phase I to serve its native load, PSE has secured appropriate transmission rights to deliver the energy from the Project to its service territory.

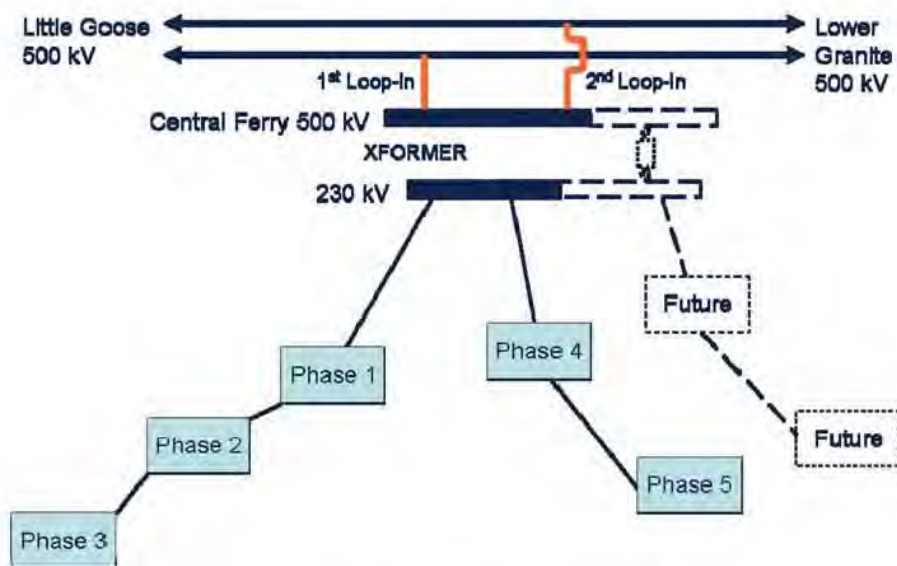


Figure 1. Simplified LSRWP Interconnection Layout.

A. BPA Interconnection

The interconnection plan is for BPA to build the new Central Ferry 500/230 kV substation, prepaid by PSE. As shown in the simplified interconnection layout above, both Little Goose-Lower Granite 500 kV lines No. 1 and No. 2 will be looped in to allow for all 1250 MW. The substation is planned such that it can be expanded to accommodate up to 2500 MW. Building the Central Ferry Substation will require BPA to install major equipment such as transformers, power circuit breakers, shunt reactor and capacitor banks. In addition, BPA is also required to install all the associated control and communications at various sites, fiber cables, digital microwaves, fiber communications additions, and smart control Remedial Action Schemes (“RAS”). The estimated PSE cost for BPA to add these network upgrades is \$102.2 million including overhead. PSE will advance fund this cost

and will receive transmission credits for the network upgrade portion of this cost, which is approximately \$102.2 million, when PSE begins taking transmission service from BPA starting in late 2011 or early 2012. Through 2009, PSE has advanced \$38.2 million. The terms and conditions guiding the development of the interconnection substation are laid out in the Large Generator Interconnection Agreement between PSE and BPA.

As currently envisioned, PSE will ultimately construct two 230 kV transmission lines to connect the LSRWP collector substations – one for Phases I, II, and III, and a second for Phases IV and V. As each collector substation is built, PSE will also be required to fund BPA's installation of control, RAS and communication equipment at these stations for the five project phases. BPA's estimated cost for such equipment is approximately \$1.5 million, including overhead, for each collector substation. This cost will be directly assigned to PSE, which means that PSE will not be eligible for transmission credits for these costs. Phase I will require a portion of the first 230 kV transmission line and two collector substations.

B. BPA Transmission

PSE will be relying on BPA's transmission system to transmit energy from Phase I to its service area. Figure 2 below illustrates how power flows from Central Ferry to PSE's service area. The transmission system shown in this figure has been greatly simplified for the purpose of showing only the important transmission paths. The flow of LSRWP energy is indicated by the arrow symbol and typically follows two paths: Cross-Cascades North, and Cross-Cascades South. The portion of power flowing in the southward direction is also traversing the constrained cutplanes of West of McNary, and the I-5 corridor. Note that the arrow sizes are proportional to the relative amount of power flowing. In order for incremental power to flow through an already congested transmission cutplane, it will require new transmission lines and/or some additional or improved reliability protection schemes.

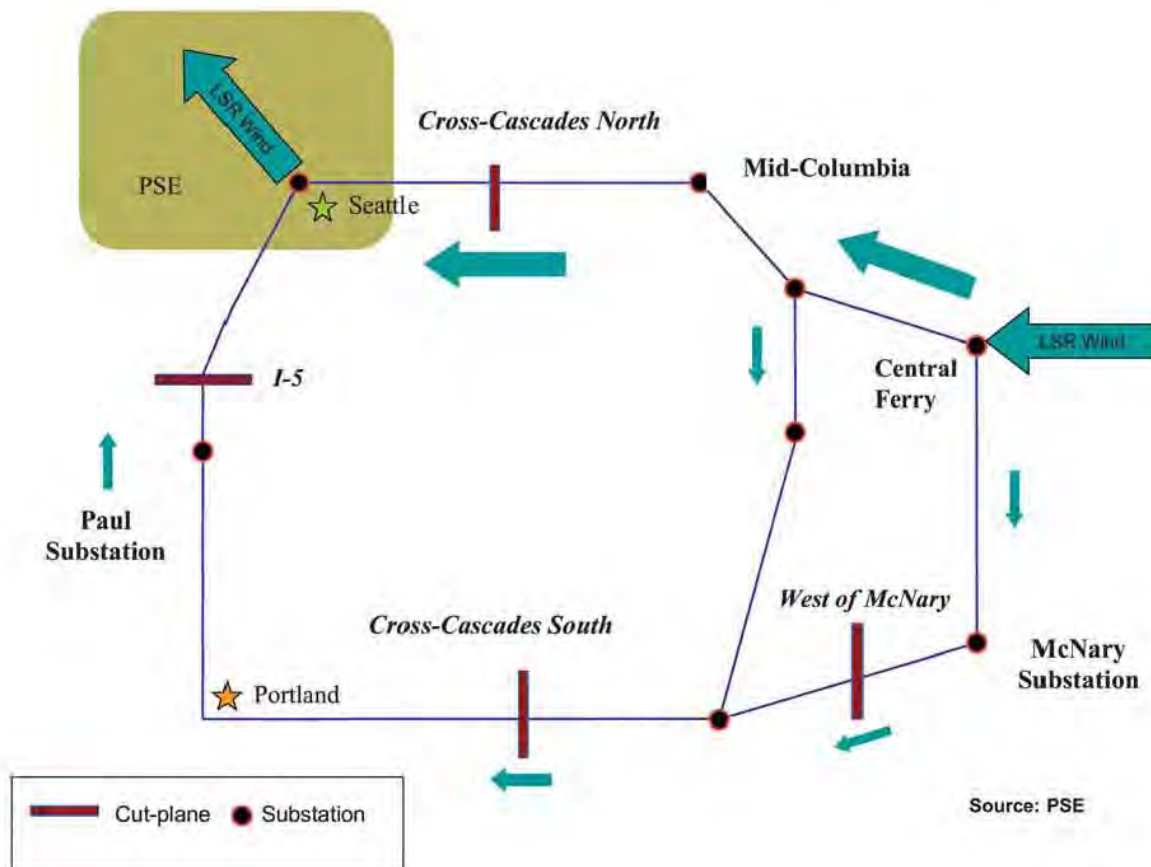


Figure 2. PSE Transmission Need to Deliver LSRWP Wind Resource.

Through the BPA 2008 Network Open Season, PSE has acquired 600 MW of transmission rights to deliver energy from LSRWP. When PSE purchased the second half of development rights from RES in 2009, PSE acquired an additional 200 MW of transmission rights. Figure 3 shows a timeline of the transmission availability versus resource requirements for LSRWP, as development is currently planned. To date, PSE has acquired 800 MW of transmission from BPA. The remaining transmission will be purchased in future BPA Network Open Seasons as future phases are developed. PSE has approximately \$12.5 million in a security deposit in an escrow account with a compound interest accumulating at the FERC's rate. This security deposit will be released by BPA 180 days after the transmission service commences.

In order for PSE to take full service of the 800 MW transmission amount, BPA will have to complete construction of most of the major transmission reinforcement projects that have been identified by BPA. Of the 800 MW, 550 MW is contingent upon the completion of the West of McNary and the Little Goose reinforcement projects scheduled to be finished in February and July of 2013, respectively. However, 250 MW of the 800 MW does not require any reinforcement projects. Of that, 200 MW starts on December 1, 2011, with an additional 50 MW starting June 1, 2012. PSE estimates that there may be a period of fifteen months with transmission deficit for Phase I. To the extent that BPA has short-term transmission available, PSE will utilize short-term firm, non-firm, and if available, conditional-firm transmission products during this gap. The possibility of curtailment during this fifteen month deficit period is small. An analysis was performed on the historic flows west of the LSRWP, and there were less than 200 hours of curtailment over a 5-year period from 2003 to 2008.

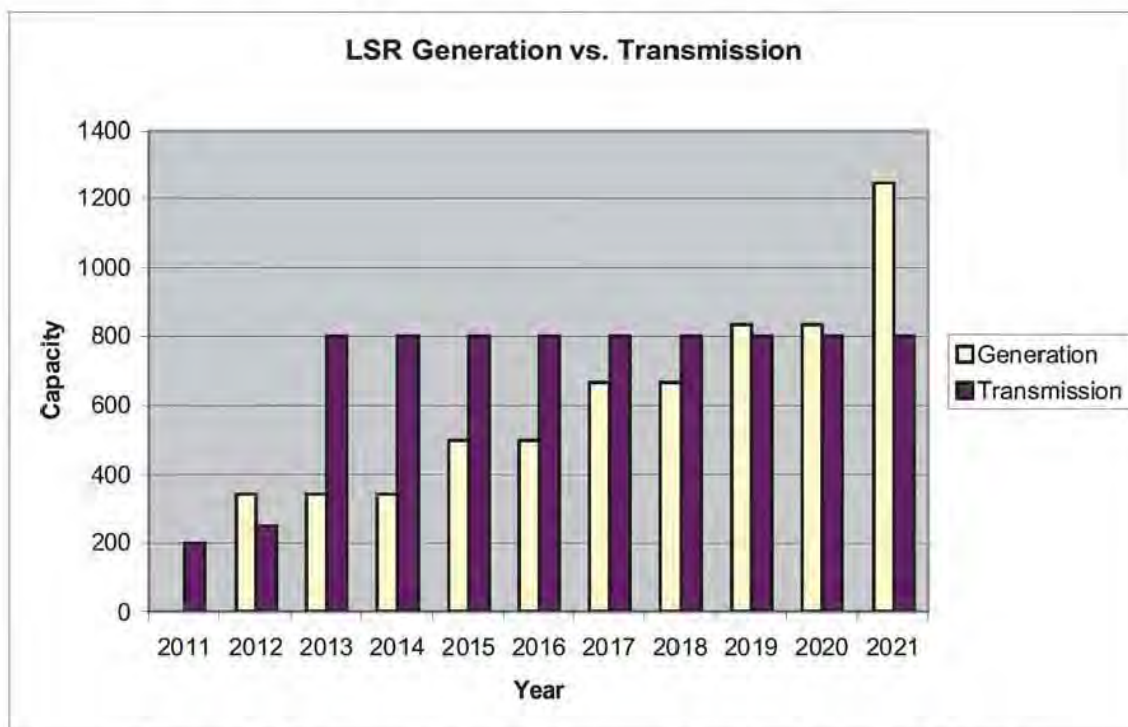


Figure 3. PSE Transmission vs. Resource Timeline for entire LSRWP.

C. Wind Integration

PSE plans to integrate Phase I into the BPA Balancing Authority ("BA") and as a result, the wind integration cost of Phase I will be similar to the cost of the Hopkins Ridge wind

project. BPA's services have two major cost components. The first cost includes the generation imbalance, which captures the difference between the hourly average generation produced and scheduled. The cost of generation imbalance is a market-based rate. The second cost is for wind integration service, which manages the variability in wind generation within the hour. The current total wind integration rate for a project integrated within the BPA BA is \$1.29 per KW per month. This rate is fixed through September 2011. It will be subject to BPA's next transmission rate case in 2011.

PSE is currently performing an in-depth analysis of its wind integration costs under varying penetration levels of wind generation in its BA and evaluating its system resources response capabilities. This study will help determine the level of wind generation that PSE's BA is able to integrate and identify the system upgrades that may increase that level. Currently, PSE's internal wind integration cost varies between \$ [REDACTED] per KW per month and \$ [REDACTED] per KW per month depending on the availability of PSE's thermal resources to support wind integration. Given that BPA's and PSE's current wind integration rates are in a similar range, the strategy of placing Phase I in BPA's BA provides PSE with the flexibility and the option to move Phase I into PSE's BA if it becomes more economical and operationally feasible. In addition, BPA is working on a number of pilot programs over the next 12 – 24 months to help support the integration of wind generation in its BA. The outcome of these pilots may make it more conducive to locating wind generation in BPA's BA. Therefore, under today's integration cost structure between BPA and PSE, any decision to forgo the option to locate in BPA's BA could eliminate the ability to place wind generation in BPA's BA if it was a more economical alternative.

REDACTED
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Exhibit R

**Dewey & LeBoeuf Memo (10/7/2009)
Re: Normalization of the Treasury Grant Under the
Section 1603 of the American Recovery and
Reinvestment Act of 2009**

Dewey & LeBoeuf LLP
1301 Avenue of the Americas
New York, NY 10019-6092

tel (212) 259-8125
fax (212) 649-9421

DEWEY & LEBOEUF

MEMORANDUM

DATE: October 7, 2009

TO: Ms. Harris and Mr. Garratt

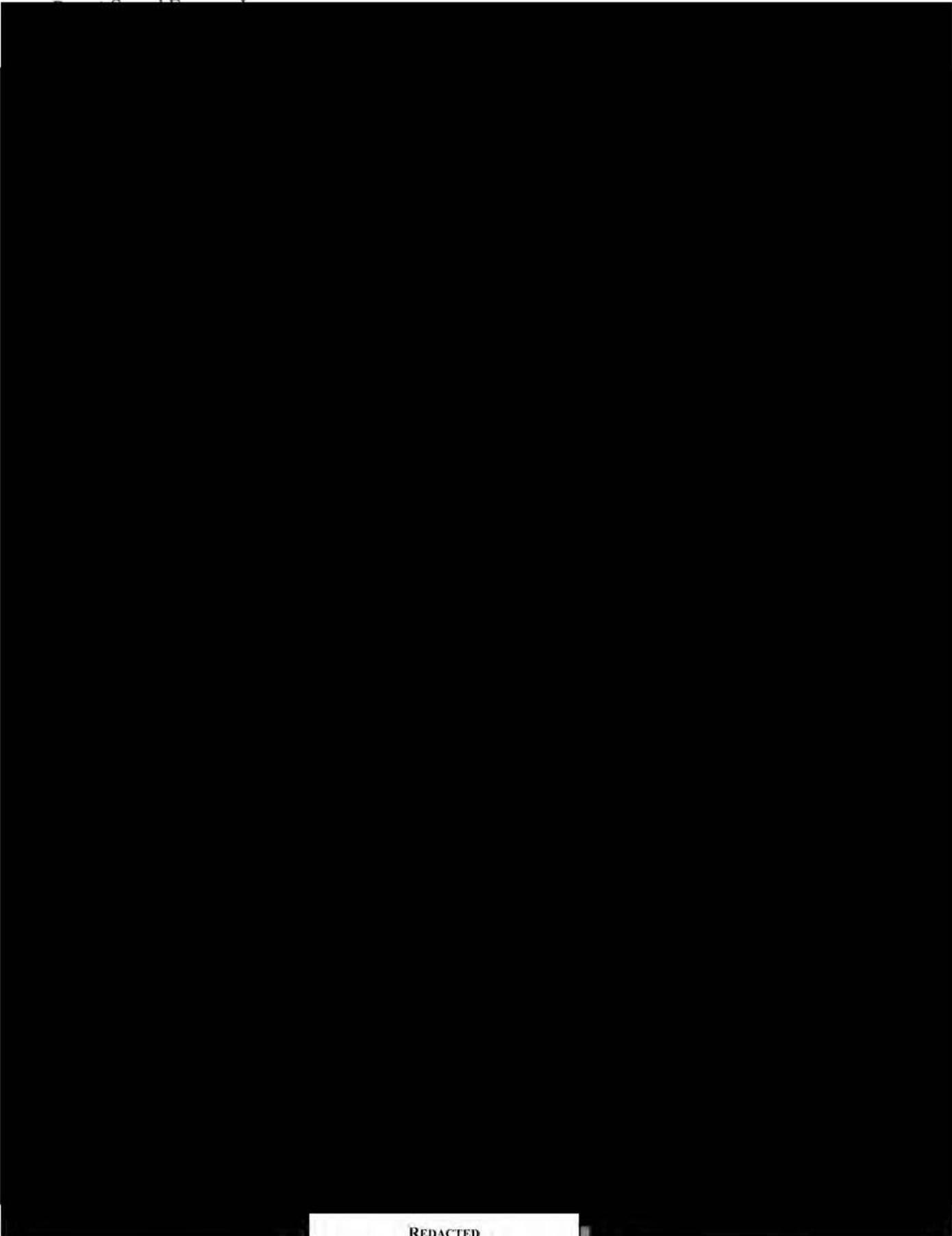
FROM: Messrs. Klauberg, Moran & Duff

RE: Normalization of the Treasury Grant under the Section 1603 of the American Recovery and Reinvestment Act of 2009

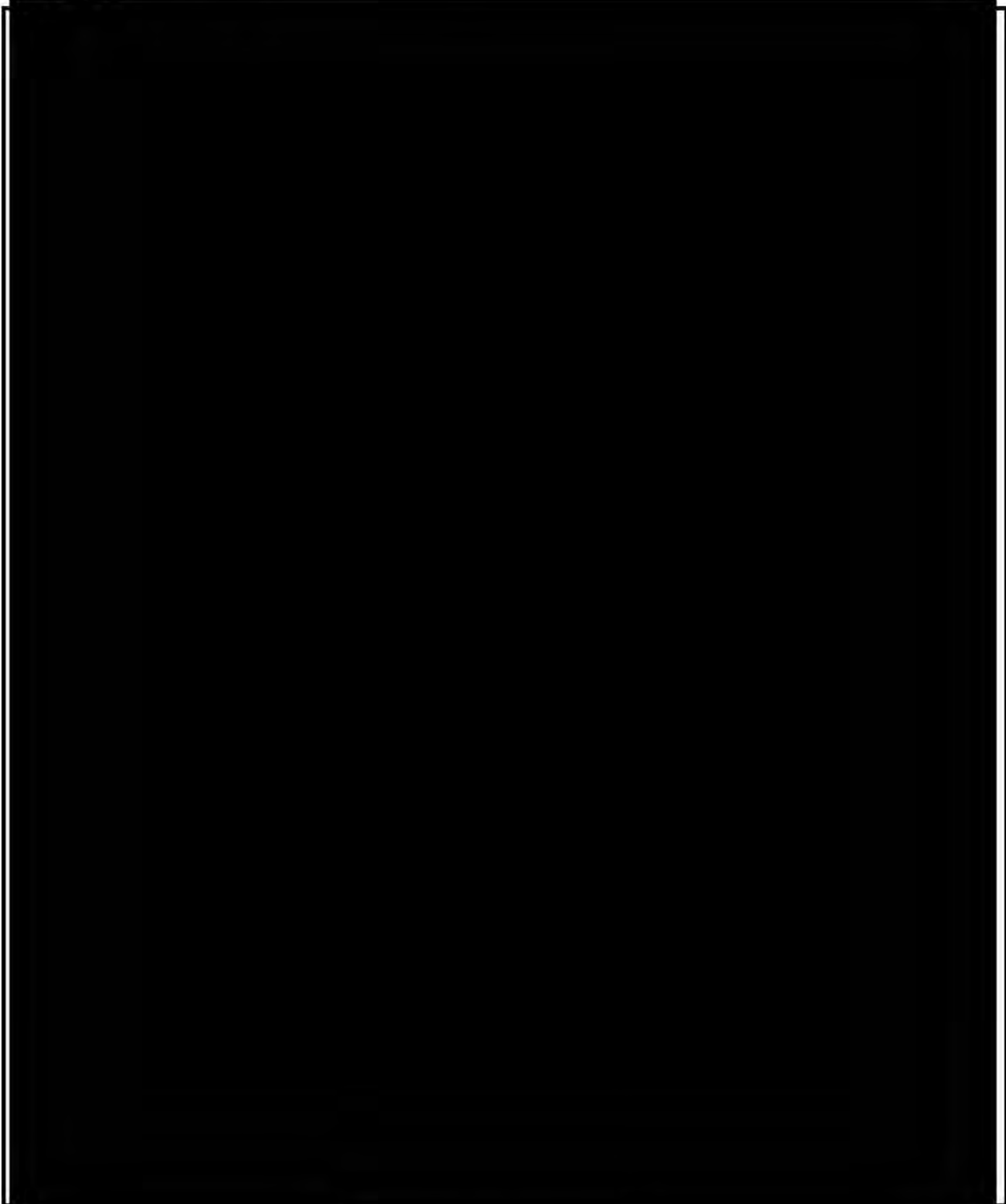


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DEWEY & LeBOEUF

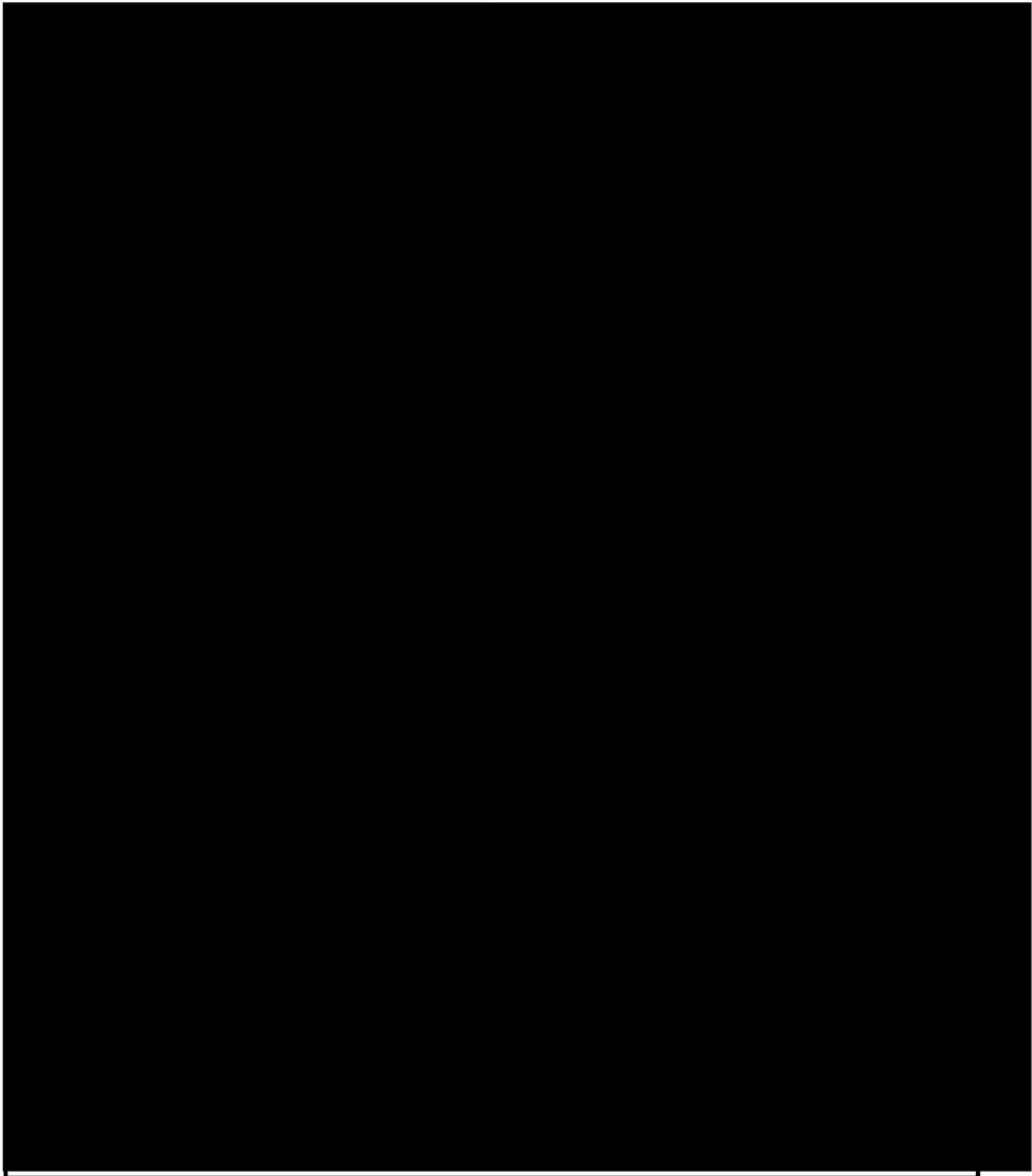


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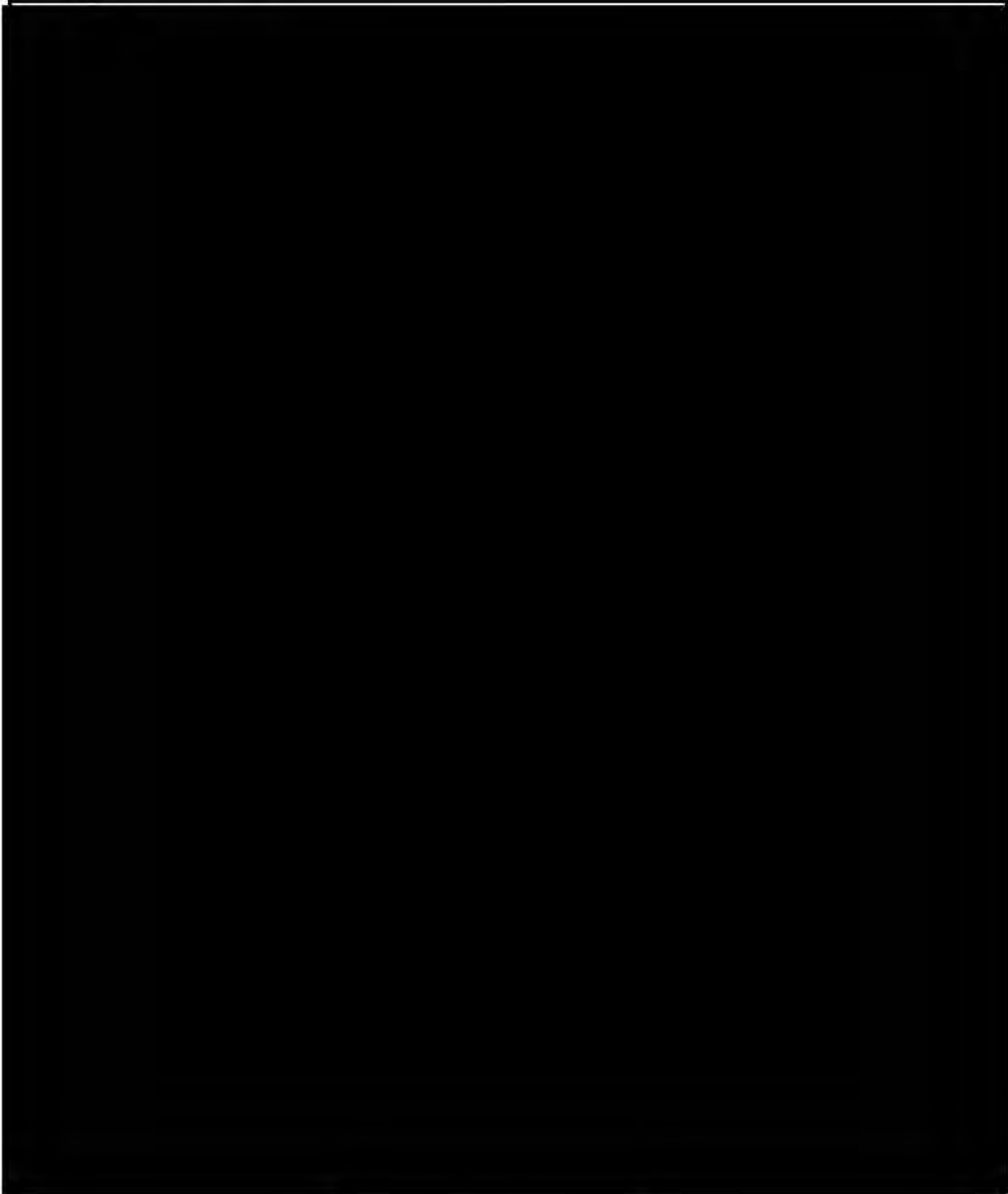


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Puget Sound Energy, Inc.
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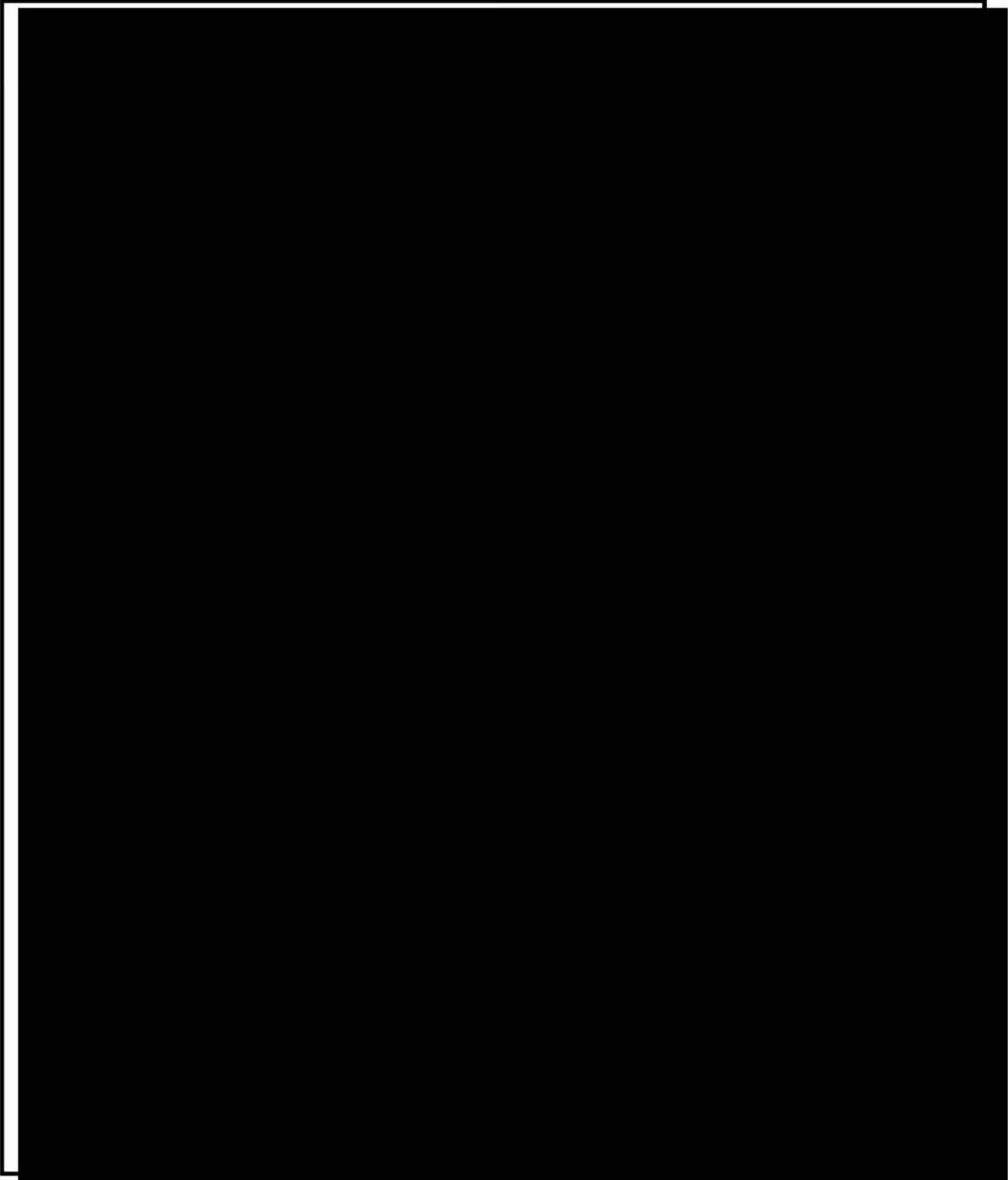


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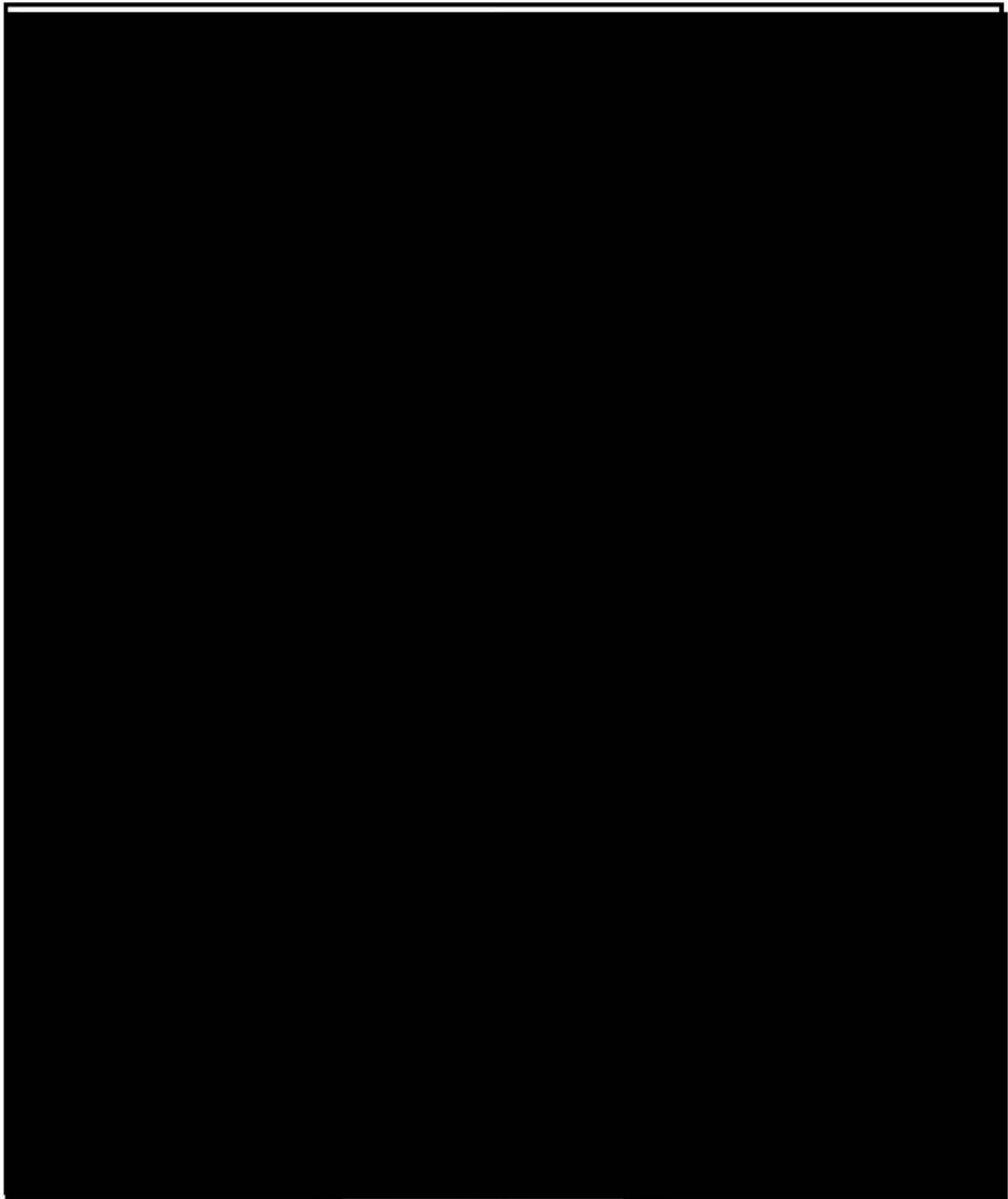
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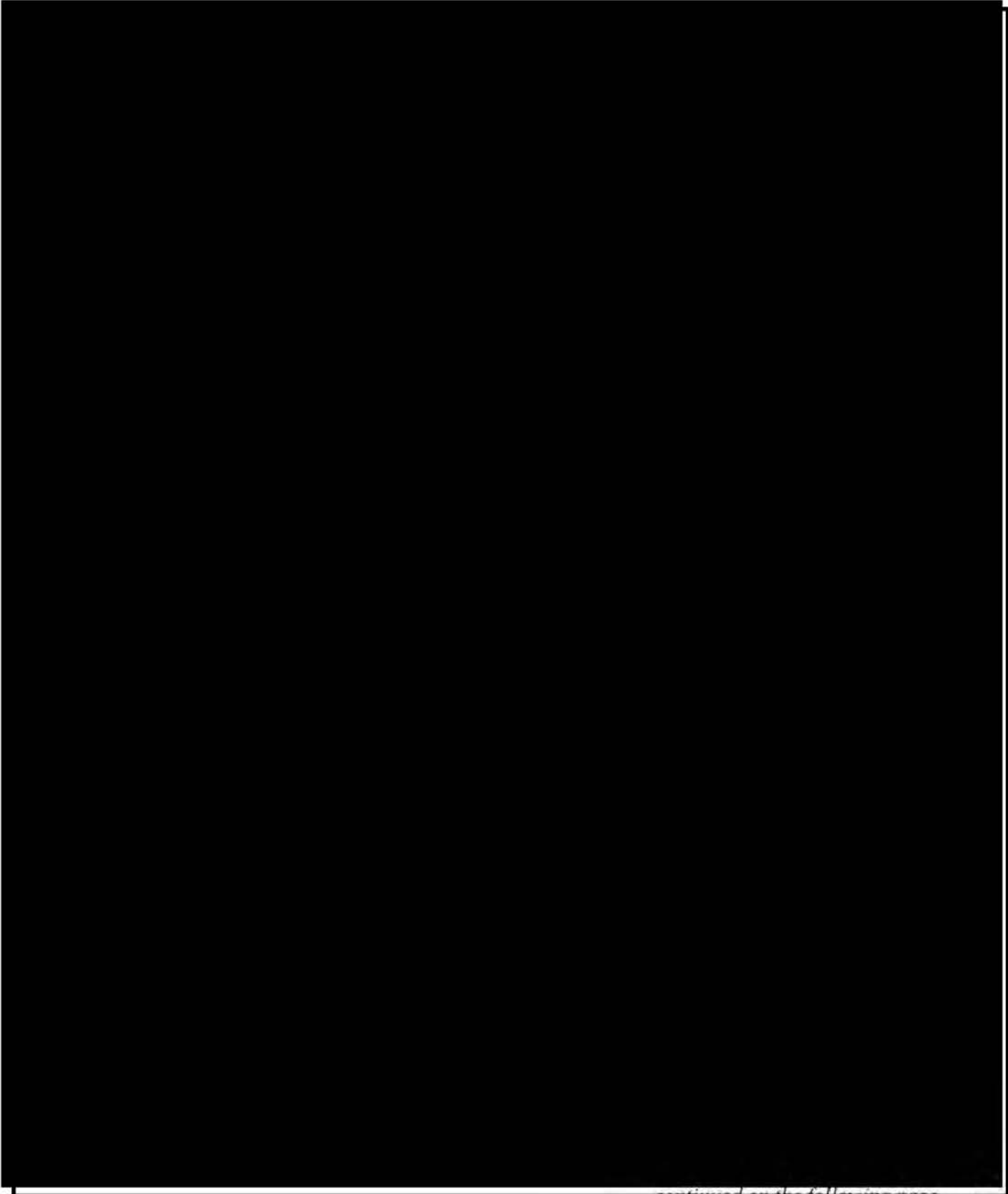
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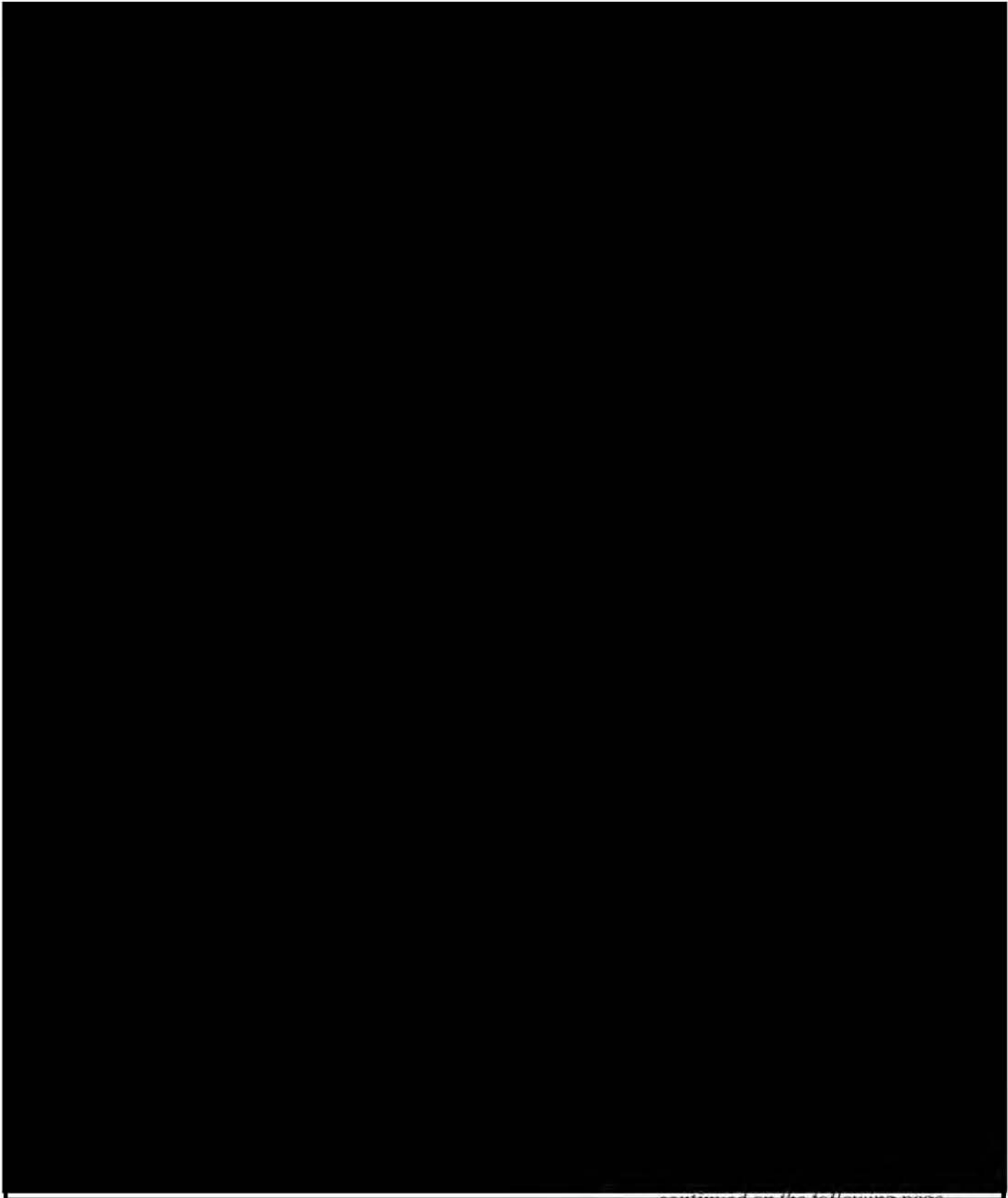
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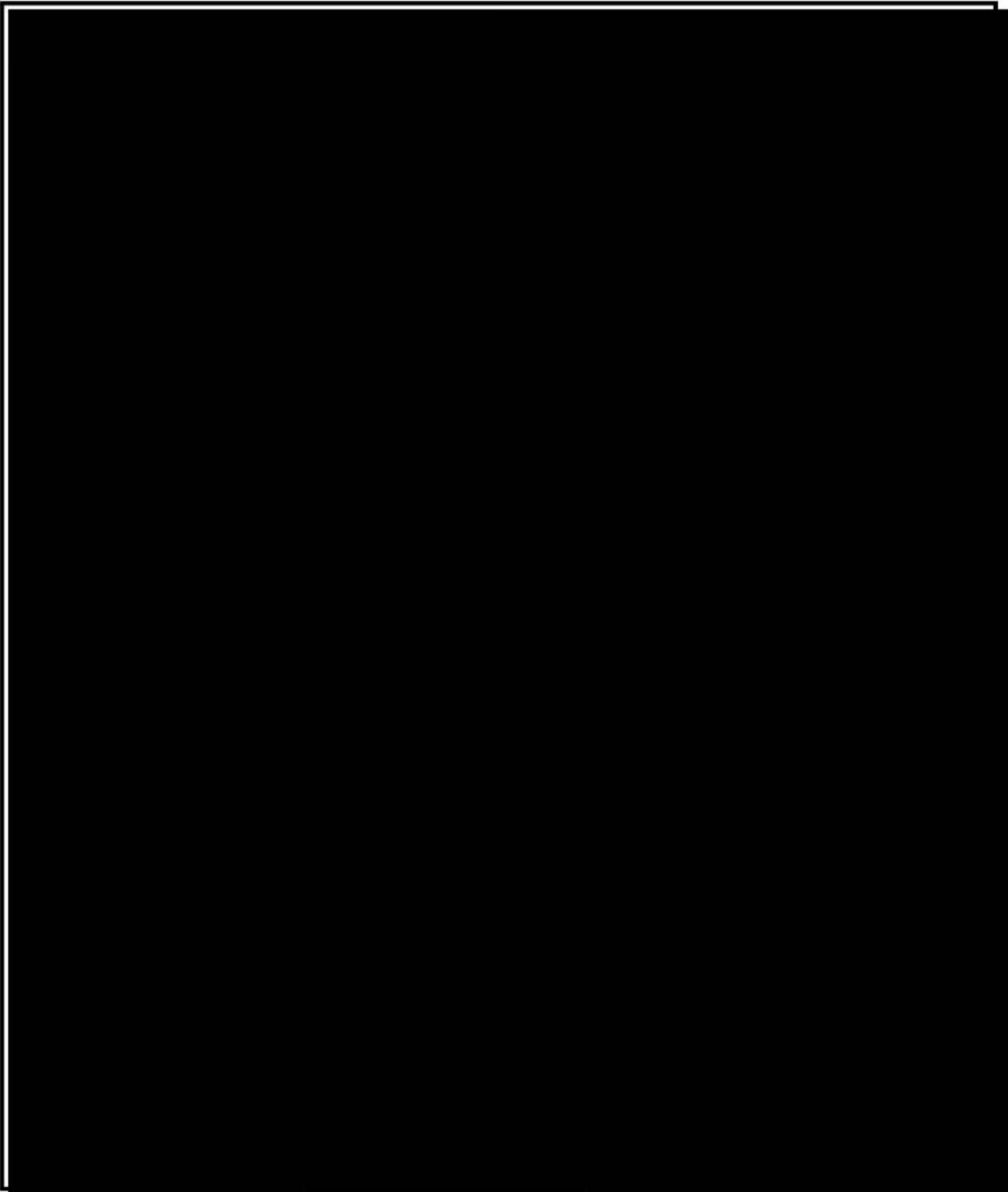
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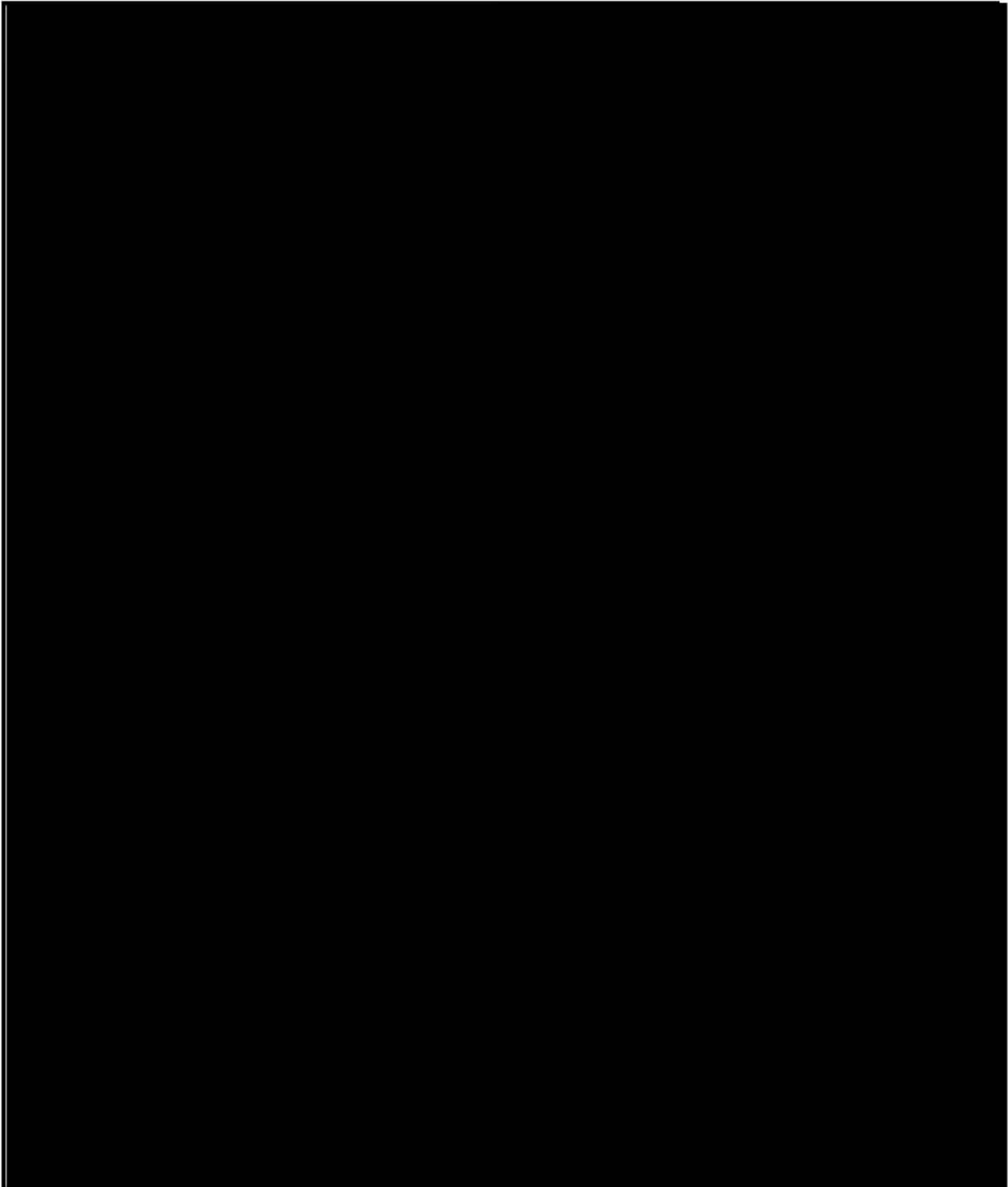
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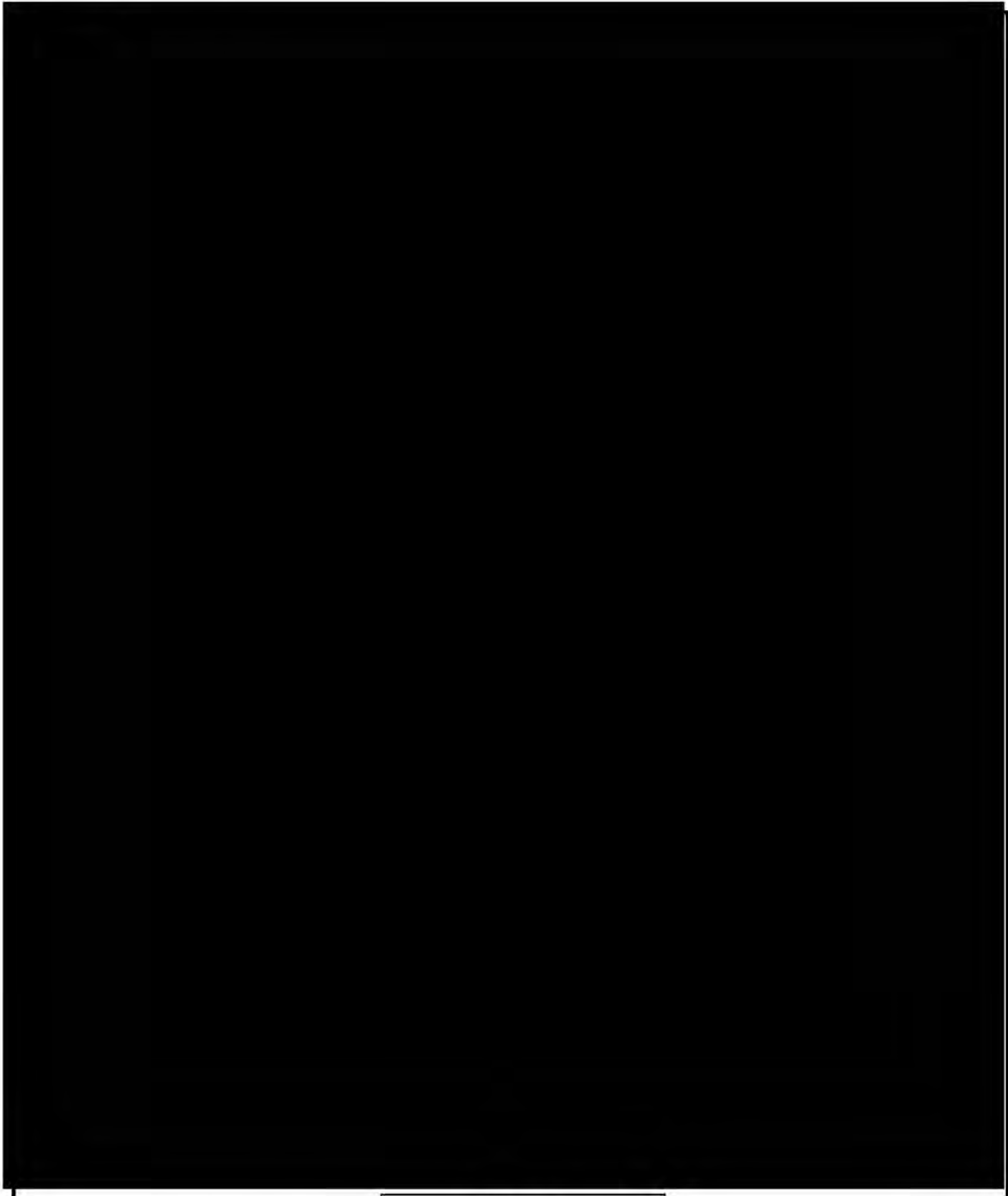
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Ernst & Young
5 Times Square
New York, NY, 10036-6530

Tel: (212) 773-3000
www.ey.com

MEMORANDUM

To: John Klauberg, Esq.
Dewey & Leboeuf

cc: Matthew R. Marcella
Tax Director, PSE

From: Elizabeth P. Askey

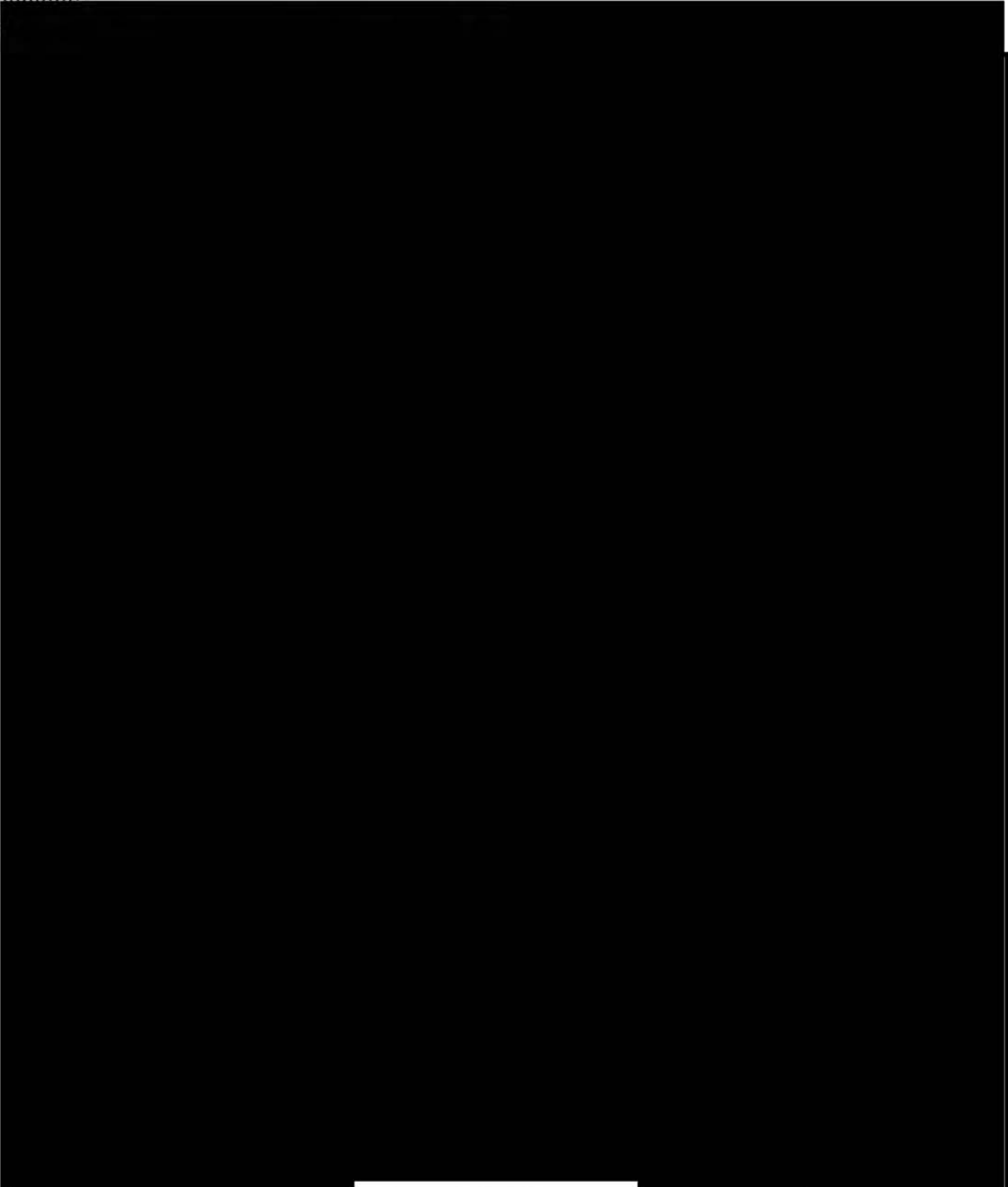
Date: September 11, 2009

Re: ARRA Section 1603 Grant

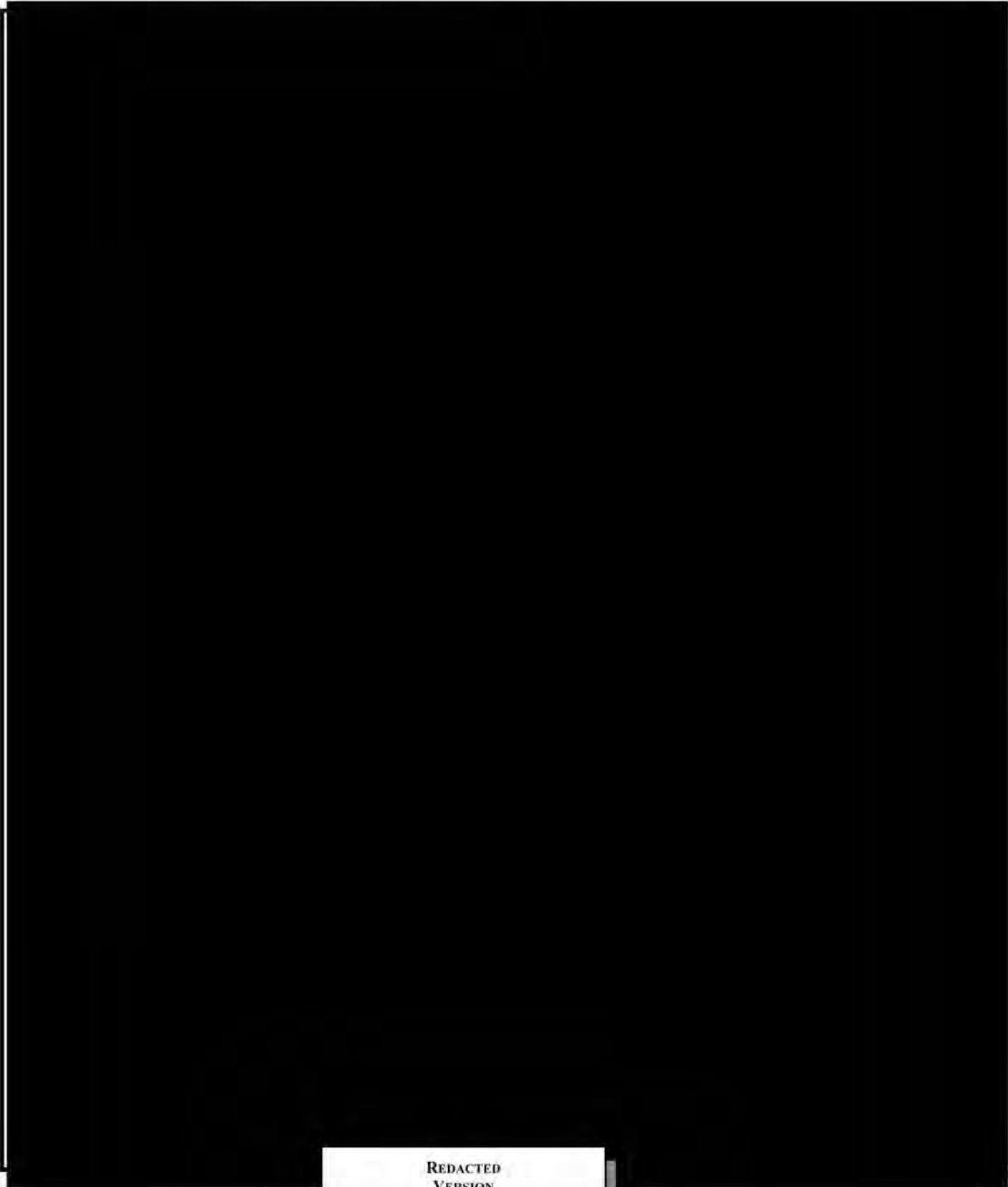


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A member firm of Ernst & Young Global Limited



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Exhibit S

**Dewey & LeBoeuf Memo (1/10/2010)
Re: "Beginning of Construction" Under the
Section 1603 Treasury Cash Grant Program**

DEWEY & LEBOEUF

Dewey & LeBoeuf LLP
1301 Avenue of the Americas
New York, NY 10019-6092

PRIVILEGED AND CONFIDENTIAL

MEMORANDUM

DATE: March 29, 2010

TO: Roger Garratt, Paul Wetherbee and Samuel Osborne

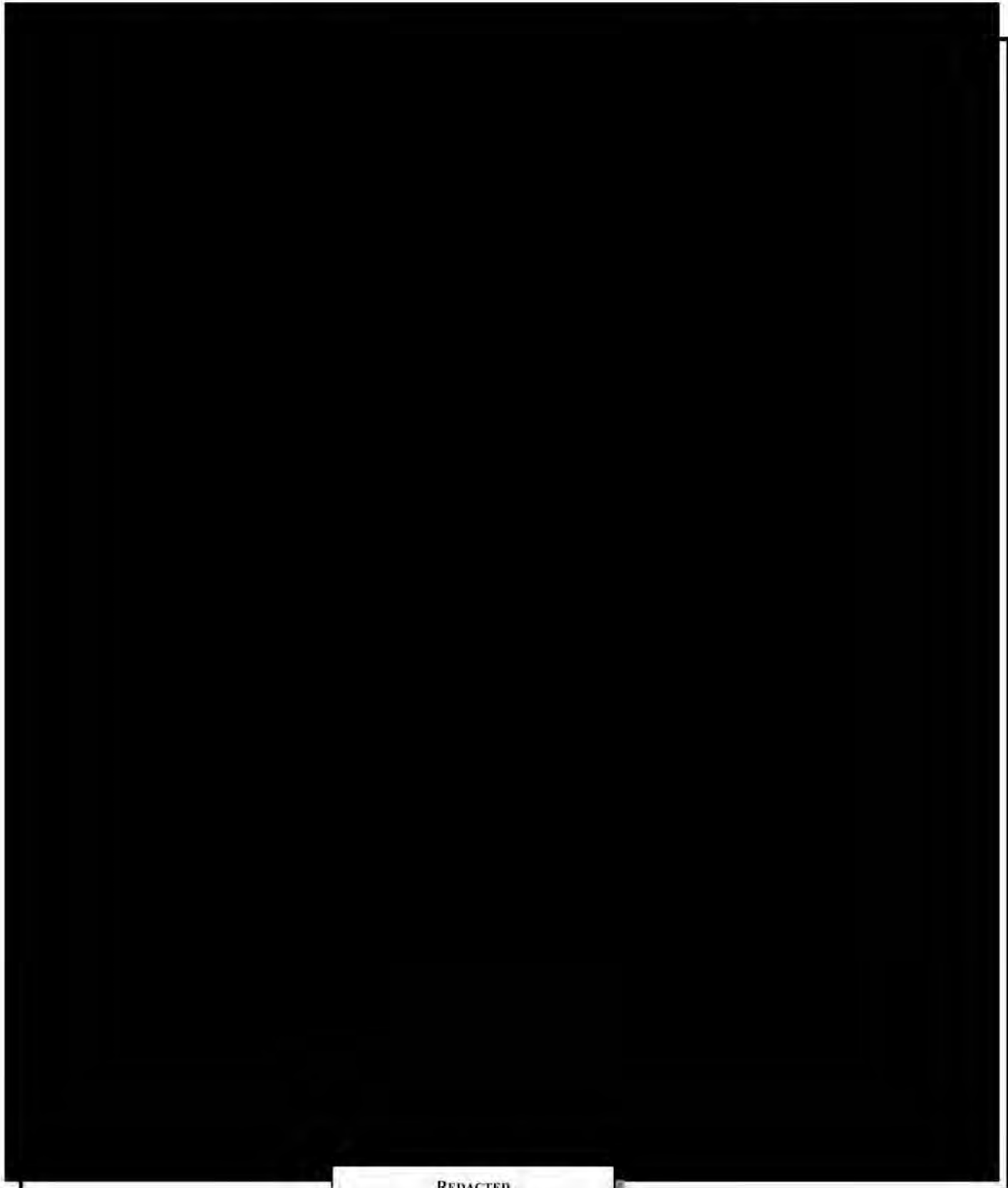
FROM: John Klauberg and Michael Espinoza



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DEWEY & LeBOEUF

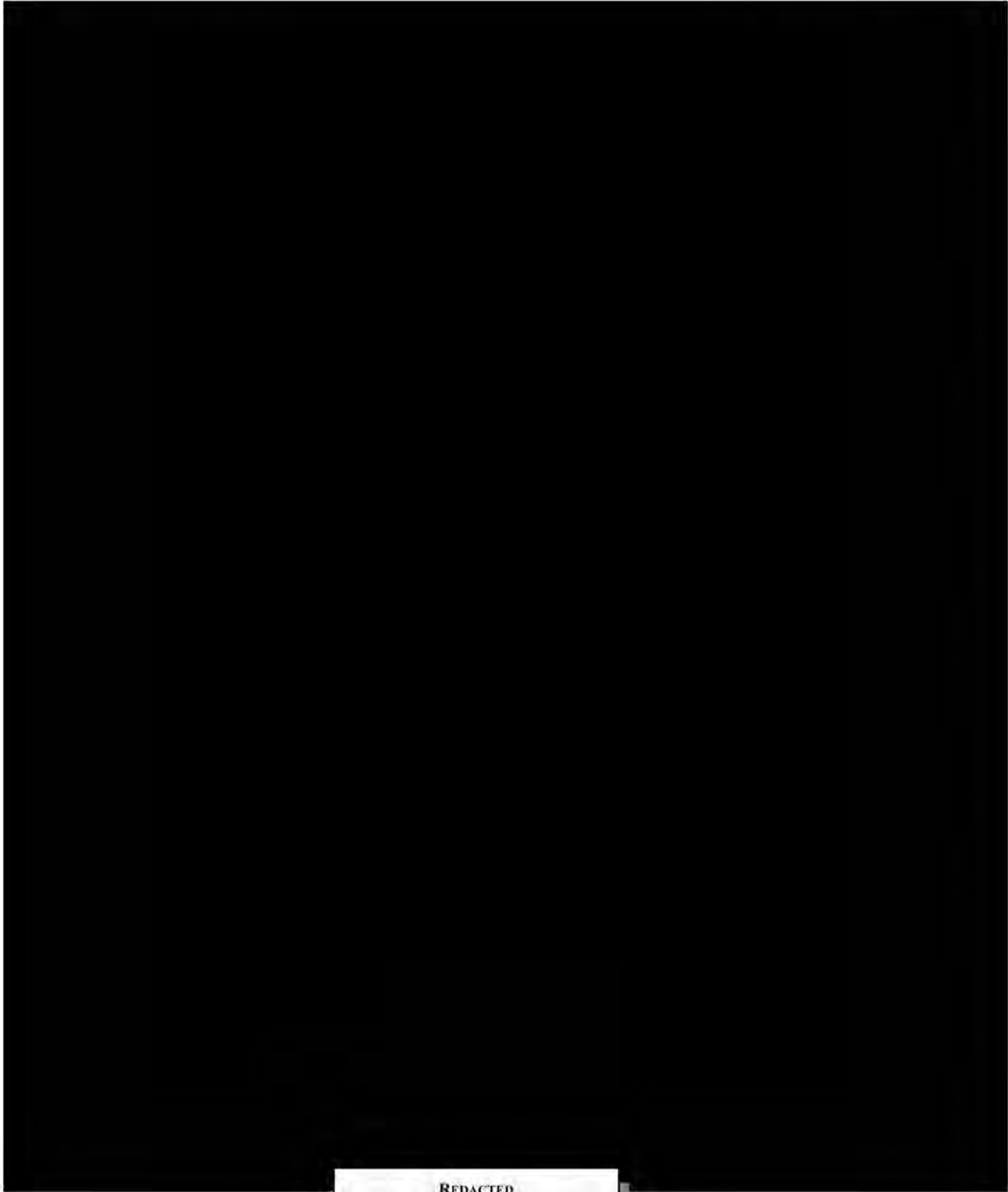
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Exhibit T

**WUTC Order Granting Accounting Petition for
Wild Horse Expansion**

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ORDER 01

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of the qualifying investment in eligible facilities, including wind farms, for a defined period of time and reduce the accelerated tax depreciation of the renewable energy facility to one half of the grant or ITC claimed. PSE concluded that claiming the ITC would have resulted in a problem similar to that of PTCs, in that it could only be used if the company had sufficient tax liability. The Company ultimately determined that the grant was the better option.

- 3 PSE currently passes on to customers, through Schedule 95A, PTCs based on wind generation. These credits can be carried back one year and forwarded up to 20 years. Through June 30, 2009, PSE has created PTCs and passed on to customers \$61.2 million, while only \$24.0 million has been used to reduce the Company's tax liability. As part of this petition, PSE has provided a comparative analysis reflecting greater rate payer benefit from the cash grant versus the ITC and PTC options. After reviewing the petition, Staff concludes that, in these circumstances, the requested accounting and normalization treatment is reasonable. However, the Commission and its Staff reserve the right to provide alternative methodologies for the treatment of Treasury grants in future proceedings that may differ from the Company's proposed accounting and normalization treatment based on new analysis, new information becoming available, or based on new guidance being provided by the Internal Revenue Service or Treasury.

FINDINGS AND CONCLUSIONS

- 4 (1) The Washington Utilities and Transportation Commission is an agency of the State of Washington vested by statute with the authority to regulate the rates, rules, regulations, practices, accounts, securities, transfers of property and affiliated interests of public service companies, including electric companies. *RCW 80.01.040, RCW 80.04, RCW 80.08, RCW 80.12, RCW 80.16 and RCW 80.28.*
- 5 (2) PSE is an electric company and a public service company subject to Commission jurisdiction.
- 6 (3) WAC 480-07-370(1)(b) allows companies to file petitions including that for which the Company seeks approval.

**DOCKET UE-091570
ORDER 01**

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- 7 (4) Staff has reviewed the petition in Docket UE-091570, including related work papers.
- 8 (5) Staff believes the proposed accounting and normalization treatment PSE requests is reasonable based on the information provided by the Company and should be approved.
- 9 (6) This matter came before the Commission at its regularly scheduled meeting on December 10, 2009.
- 10 (7) After examination of the petition filed in Docket UE-091570 by PSE on September 30, 2009, and giving due consideration to all relevant matters and for good cause shown, the Commission finds that the accounting and normalization treatment requested should be approved.

ORDER

THE COMMISSION ORDERS:

- 11 (1) Puget Sound Energy, Inc.'s accounting and normalization treatment, reflecting a ten year amortization period of proceeds from a U.S. Treasury Department grant to be received under Section 1603 of the American Recovery and Reinvestment Act of 2009 associated with the Wild Horse Expansion Project and inclusion in Schedule 95A, is granted.
- 12 (2) This Order shall in no way affect the authority of the Commission over rates, services, accounts, valuations, estimates, or determination of costs on any matters whatsoever that may come before it, nor shall anything herein be construed as acquiescence in any estimate or determination of costs claimed or asserted.
- 13 (3) Any request made by Puget Sound Energy, Inc., in its petition that is not granted herein is deemed denied without prejudice.
- 14 (4) This order does not preclude the Commission or its Staff, or any other parties, from advocating alternative methodologies that may impact the accounting and normalization of Treasury grants in future proceedings based on new information, new analysis, or federal guidance rulings.

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ORDER 01**

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- 15 (5) The Commission retains jurisdiction over the subject matter and Puget Sound Energy, Inc., to effectuate the provisions of this Order.

DATED at Olympia, Washington, and effective December 10, 2009.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

JEFFREY D. GOLTZ, Chairman

PATRICK J. OSHIE, Commissioner

PHILIP B. JONES, Commissioner

Exhibit U

PSE Accounting Memorandum Re: US Treasury Grant



MEMORANDUM

DRAFT

Date: November 25, 2009

To: Accounting and tax files

From: Matt Marcelia
Mike Stranik
John Story

Cc: Eric Markell
Jim Eldredge

Subject: Proposed Book and Tax Treatment of Treasury Grants Received for Wind Projects under §1603 of the American Recovery and Reinvestment Act of 2009

I. Executive Summary

A. The Need for Renewable Energy Supply

Development of large scale renewable energy projects is essential to the ability of Puget Sound Energy, Inc. ("PSE" or "the Company") to meet its renewable energy acquisition obligations under state law. In recognition of the inherent financial complexity of these projects and the numerous obstacles to their timely development, management of PSE have been actively engaged for some time with public officials and industry participants to help evolve effective public policy incentives that support renewable energy development in a cost effective manner for PSE's customers.

B. The American Recovery and Reinvestment Act of 2009 ("ARRA")

The American Recovery and Reinvestment Act of 2009 ("ARRA"), enacted on February 17, 2009, extends and expands a number of valuable financial incentives for owners of

qualified renewable energy projects, including wind projects. For wind projects, the ARRA provides two new investment incentive options in addition to the production tax credit ("PTC"). These are

- an election to convert the PTC to an investment tax credit ("ITC")
or
- an application to receive a cash grant from the US Treasury ("Treasury Grant" or "Grant") in lieu of the PTC. Such application is independent of, and unrelated to, the ITC election option.

The alternative investment incentive options provided by the ARRA address two infirmities inherent in the present PTC incentive structure and its reliance on the Internal Revenue Code ("IRC") as the means of delivering the intended incentive.

First, the ARRA recognizes that many taxpayers, including many utilities, are not large enough to have sufficient taxable income to timely and cost effectively utilize the PTC benefit produced by a large scale wind project.

Second, the ARRA recognizes that for independent power producers and utilities alike, the near collapse of the financial system in 2008-2009 greatly reduced the number of participants in, and the capacity of, the third party tax equity marketplace to absorb the PTC benefits associated with renewable energy project development through complex project financing transactions.

C. Company Analyses of Alternatives

Company staff has evaluated a variety of generic transactional structures for the acquisition of wind resources and the Company's forecast taxable income position. It has concluded that under presently known conditions that the greatest economic benefit to customers is likely to be associated with the election of Treasury Grants in lieu of PTCs. In all cases, the Company will have to carefully evaluate its specific choices given the options available to it and in light of the prudence guidelines established by the Washington Utilities and Transportation Commission ("WUTC").

After conversations with the IRS and Treasury during 2009, consultations with its legal advisors, and after reviewing the ARRA and Treasury Guidance¹, the Company has determined to utilize Treasury Grants for its wind projects in lieu of PTCs where it is in the best economic interest of its customers to do so. Further, the Company concludes that such grant benefits may be provided to its retail customers using a 10-year normalization period, a period which is similar to, and consistent with, the 10-year

¹ "Payments for Specified Energy Property in Lieu of Tax Credits under the American Recovery and Reinvestment Act of 2009", U.S. Treasury Department, Office of the Fiscal Assistant Secretary, July 2009. Referred to herein as "Treasury Guidance".

period over which PTC benefits would have been provided to retail customers had the Company had sufficient taxable income to timely utilize such benefits.

In addition, PSE has determined that cash Grants for PSE's wind projects are compensation related to its election to forego PTCs. Based on the review of the accounting guidance from International Accounting Standard (IAS) 20 "Accounting for Government Grants and Disclosure of Government Assistance," PSE has determined that the cash Grant elected in lieu of the PTC should be recognized over the same 10-year period as PTCs would have been recognized for financial reporting purposes.

II. Accounting and Tax Treatment Considerations for Treasury Grants

A. General Considerations

The accounting treatment for Treasury Grants that should be applied to regulated utilities is closely linked to the how the benefit originated. For PSE, the Treasury Grants are a replacement of PTCs. The PTCs are a tax credit under Section 45 of the IRC. A second consideration is the relevant accounting principles that would apply. Regulatory decisions of how the grants will be treated for ratemaking purposes should also inform the approach taken to financial reporting for a particular company. Below, we present a discussion and analysis of these complex and nuanced considerations and specifically their application to the acquisition of wind resources by regulated utilities.

B. IAS/U.S. GAAP Guidance

U.S. generally accepted accounting principles (GAAP) do not provide specific guidance on grant accounting; however, the American Institute of Certified Public Accountants makes reference to International Accounting Standard 20 "Accounting for Government Grants and Disclosure of Government Assistance" (IAS 20). Under paragraph 7 of IAS 20, in order to recognize a grant in the income statement, the company must have reasonable assurance of the following:

- a) the entity will comply with the conditions attaching to them;
and
- b) the grants will be received.

A grant's impact on the income statement must also be recognized over period(s) in which the entity recognizes the corresponding income or expenses that it is intended to compensate.

The Treasury Grant may be elected in a single step in lieu of PTCs. A taxpayer is not required to first elect an ITC then further elect to convert it to a Treasury Grant. The ARRA provides the option to directly elect to claim a Treasury Grant to compensate

companies for PTCs that it cannot use due to limited taxable income. Under paragraph 12 of IAS 20, it states:

Government grants shall be recognized in profit or loss on a systematic basis over the periods in which the entity recognizes as expenses the related costs for which the grants are intended to compensate.

The final relevant portion of IAS 20 is found in the final sentence of paragraph 17 which states:

Similarly, grants related to depreciable assets are *usually* recognized in profit or loss over the periods and in the proportions in which the depreciation expense on those assets is recognized.
[Emphasis added.]

For U.S. GAAP, in consideration of the appropriate accounting for the Grant benefit, the Company would follow the guidance in ASC 980, "Regulated Operations" (980-45-25-1), which provided the following guidance:

25-1 Rate actions of a regulator can impose a liability on a regulated entity. Such liabilities are usually obligations to the entity's customers. The following are the usual ways in which liabilities can be imposed and the resulting accounting:

- a. A regulator may require refunds to customers. Refunds can be paid to the customers who paid the amounts being refunded; however, they are usually provided to current customers by reducing current charges. Refunds that meet the criteria of accrual of loss contingencies shall be recorded as liabilities and as reductions of revenue or as expenses of the regulated entity.
- b. A regulator can provide current rates intended to recover costs that are expected to be incurred in the future with the understanding that if those costs are not incurred future rates will be reduced by corresponding amounts. If current rates are intended to recover such costs and the regulator requires the entity to remain accountable for any amounts charged pursuant to such rates and not yet expended for the intended purpose, the entity shall not recognize as revenues amounts charged pursuant to such rates. The usual mechanism used by regulators for this purpose is to require the regulated entity to record the anticipated cost as a liability in its regulatory accounting records. Those amounts shall be recognized as liabilities and taken to income only when the associated costs are incurred.
- c. A regulator can require that a gain or other reduction of net allowable costs be given to customers over future periods. That would be accomplished, for rate-making purposes, by amortizing the gain or other reduction of net allowable

costs over those future periods and reducing rates to reduce revenues in approximately the amount of the amortization. If a gain or other reduction of net allowable costs is to be amortized over future periods for rate-making purposes, the regulated entity shall not recognize that gain or other reduction of net allowable costs in income of the current period. Instead, it shall record it as a liability for future reductions of charges to customers that are expected to result.

Since the Treasury Grant is in substance a reduction of net allowable costs and the Company will receive an order from the WUTC requiring such benefit to be passed through to the customer, the guidance for criteria (c) above would apply to PSE. For GAAP reporting purposes, PSE will record the Treasury Grant as a reduction to Utility Plant and amortize the benefit over 10 years to Amortization Expense starting the date the Washington Commission approves the amount in tariff rates.

C. PwC Accounting Guidance Is Useful but Incomplete With Respect To Utility Owned Section 45 Property

In response to the ARRA, PwC issued its own accounting guidance on the Treasury Grant program in June 2009, "Utility GAAP Alert 2009-6: American Recovery and Reinvestment Act of 2009 – Accounting Considerations" ("Alert 2009-6" or "PwC Guidance", attached). The PwC Guidance preceded the Treasury Guidance issued by the Treasury in July 2009 (attached) and, accordingly, could not have benefitted from or responded to the Treasury Guidance.

In Alert 2009-6, PwC describes only two of the possible three election alternatives available to taxpayers under ARRA, namely i) "election to claim ITC in lieu of PTC", see page 1 of Alert 2009-6, and ii) "election to claim cash grants" [in lieu of ITC], see page 2 of Alert 2009-6. Both of these options relate to Section 48 property.

The PwC Guidance does not address the third alternative available to PSE, namely, election of a grant in lieu of, and as compensation for foregoing, PTC related to Section 45 property.

This omission is critically important to PSE in that its facts and circumstances do not fit the two ITC related election alternatives described in the PwC Guidance. Indeed, such ITC alternatives are not relevant to PSE's factual circumstances.

The title of §1603 of ARRA is "Grants for Specified Energy Property in Lieu of Tax Credits". Such title applies equally to ITCs and PTCs. "Specified Energy Property" consists of §45 (PTC) property, including wind, and §48 (ITC) property, including solar. In other words, as the title implies, if a taxpayer is eligible for a tax credit under either section, it is eligible to claim a grant in lieu of such tax credit.

The PwC Guidance appropriately guides the taxpayer who elects ITC or grants in lieu of ITC through applicable accounting treatments. However, it is silent on guidance for the accounting treatment for taxpayers who elect alternative three, namely, a grant as compensation in lieu of PTC. As discussed below, the outcomes with respect to the normalization treatment to be applied by a utility taxpayer who is a recipient of a grant in lieu of PTC are notably different.

D. Legislative Intent of ARRA

The ARRA was enacted on February 17, 2009. The ARRA extends and expands a number of valuable tax incentives including, specifically for wind projects, two options: (i) an election to convert the PTC to an ITC *or* (ii) the option to receive a cash grant from the Treasury directly in lieu of the PTC.

A taxpayer is not required to first convert the PTC to ITC and then further convert it to a grant. Indeed, a taxpayer may not do so.

It is expected for the foreseeable future that the PTC generated from the Company's existing wind projects will continue to be greater than the amount of PTC that the Company will be able to timely utilize as a credit against its federal income tax liability, thus severely reducing the time value of the benefit it can make available to its retail customers. The inability to use PTCs in a timely fashion is not unique to the Company. Indeed, it is common to both the utility and independent power industry as a whole, thus the evolution of the formerly robust market in PTC benefit transfer to third party tax equity investors who participate in complex project financing transactions. The inability of companies to use PTCs due to insufficient taxable income raised significant concerns in Congress as to how to best and most effectively encourage rapid development of renewable energy facilities. This concern was heightened in light of the 2008-2009 financial markets collapse that greatly reduced the number of tax equity participants and made apparent that even mid-sized utilities do not generate sufficient taxable income to shelter the PTCs that will be made available as utilities move to comply with state renewable portfolio standard ("RPS") requirements.

As affirmed in the Treasury Guidance issued in July 2009, the establishment of the grant program directly relates to the decline in third party demand for tax credits. Such Guidance states in principal part:

It is expected that the § 1603 program will temporarily fill the gap created by the diminished investor demand for tax credits. In this way, the near term goal of creating and retaining jobs is achieved, as well as the long-term benefit of expanding the use of clean and renewable energy and decreasing our dependency on non-renewable energy sources.²

² Treasury Guidance at Part I, page 3.

E. The Normalization Issue and the “Similar to” Standard

The actual text of the ARRA is silent on a number of important details – one of which is whether or not the Treasury Grant is actually subject to tax normalization. The Treasury has traditionally used the term normalization to regulate how quickly a utility can pass a *tax benefit* to customers. The statutory construction of the ARRA makes it clear that the Treasury Grant is not a creature of the IRC nor is it a tax benefit. Instead, it is a tax exempt grant.

There are presently two types of tax normalization provided in the IRC:

- a) accelerated tax depreciation is described under IRC §167 and
- b) ITC is described under IRC §46(f).

Different rules apply to each type of tax benefit normalization.

Section 1603 of the ARRA does not mention tax normalization. It does in §1603(f) require the Treasury to apply rules *similar to the rules of* §50 of the IRC.

In making grants under this section, the Secretary of the Treasury shall apply *rules similar to the rules of section 50* of the Internal Revenue Code of 1986. In applying such rules, if the property is disposed of, or otherwise ceases to be specified energy property, the Secretary of the Treasury shall provide for the recapture of the appropriate percentage of the grant amount in such manner as the Secretary of the Treasury determines appropriate. [Emphasis added.]

Section 50 does not mention normalization. However, subsection 50(d)(2) of the IRC refers to “rules similar to §46(f)”. Section 46(f), which was removed from the IRC in 1990, governs ITC normalization. Historically, the ITC normalization rules of §46(f) required a taxpayer to amortize ITC to customers no more quickly than ratably over the book life of the underlying asset³.

Given the ambiguity in the phrase, “similar to the rules of section 50”, included in the §1603 of the statute, representatives of PSE traveled to Washington D.C. in May 2009, approximately two months prior to Treasury issuing its guidance on the Treasury Grants, to discuss with representatives of the IRS and Treasury the characterization of the Treasury Grant and the ambiguous language concerning the normalization issue. In that meeting, the IRS representatives included their normalization team (Mr. Chuck Ramsey, Mr. Peter Friedman, and Mr. Pat Kirwan). During that meeting, PSE offered several arguments detailing why normalization, which is a tax attribute consideration, should not

³ PSE is a method 2 filer and accordingly follows the provision of §46(f)(2) for ITC normalization.

apply to a grant which Congress had determined to be free of income tax. In that meeting, the IRS representatives present stated their view that some form of normalization must apply, given the "similar to the rules of section 50" reference in §1603.

During such discussions with IRS staff, PSE pointed out that Congress clearly intended the Treasury Grant to be a replacement of the PTC and that accordingly, a 10-year normalization period should meet the "similar to" test inasmuch as 10 years was the identical period over which the equivalent PTCs would be generated and passed through to customers. Thus, PSE asserted that the "similar to" language should not be interpreted to mean "identical to". IRS representatives stated that PSE's proposed normalization approach (i.e. 10 years) "sounded" consistent with the standard of "similar to the rules of section 50."

In follow-up letters and conversations, PSE, with the assistance of Ernst & Young (E&Y), asked the IRS to be specific in its ultimate normalization guidance. However, as the conversations progressed, it became clear that the IRS had not considered the nuances and important implementation details of normalization issues as they might pertain to tax exempt grants. For example, there is neither tax expense nor deferred tax expense to be normalized in connection with a Treasury Grant. The IRS stated that taxpayers would have to work out the details of grant normalization with their regulatory commissions.

These conversations with the Treasury and the IRS confirmed for PSE there is some reasonable flexibility afforded the utility taxpayer in determining the time period for normalization of a grant. As a result of such conversation, PSE requested that, if the Treasury determined that normalization applied to grant recipients, the Treasury issue a simple statement to that effect rather than issuing detailed normalization requirements.

When the Treasury Guidance was issued in July 2009, the Treasury issued, as PSE had requested, only a bare-bones statement that normalization applied to grants. No detailed guidance was given. In reference to normalization, the Treasury Guidance states, in its entirety:

Payments received under the Section 1603 program must be normalized.
*See former §46(f).*⁴ [Emphasis added.]

Significantly, the Treasury did not conclude that former §46(f) *applied*, but only referred to that section as guidance. Based on the text of §1603, the conversation with the IRS and Treasury, and the Treasury Guidance, PSE has determined that the use of a 10-year normalization period, when approved by the state regulatory commission, is consistent with §46(f), except for the amortization period which is appropriately determined by the PTC equivalency standard. E&Y issued a memorandum dated September 11, 2009, to the Company supporting this conclusion, stating that the company's interpretation was "reasonable". Company counsel, Dewey & LeBoeuf has also issued a memorandum

⁴ See Part VII, paragraph F, page 20.

dated October 7, 2009, concluding that PSE's methodology was "reasonable and appropriate".

F. Regulator Confirmation

In connection with the expansion of its Wild Horse Wind Project, PSE has filed an accounting petition with the WUTC requesting approval of a Treasury Grant normalization methodology consistent with §46(f), except for the life which is appropriately determined by the PTC equivalency standard (i.e. a 10-year normalization period). PSE expects this petition to be granted prior to filing its application for the related Treasury Grant.

The Treasury Grant application includes a question that allows a utility to explain its normalization methodology. PSE plans to disclose its 10-year normalization methodology on its application and attach an explanation as to how this methodology meets the requirements of the ARRA and the Treasury Guidance. In addition, PSE will provide the Treasury with a copy of the WUTC order authorizing 10-year normalization. Prior to issuance of the Wild Horse Expansion Treasury Grant, the Treasury will be fully aware of the normalization methodology elected by the Company ordered by the WUTC.

G. Statutory construction of §1603 / In Lieu of Tax Credits

Treasury Grants may be elected in lieu of PTCs or ITCs. There appears to be some confusion in various accounting firm guidance and press releases around the Treasury Grants. For example, some have characterized the Treasury Grant as a "grant in lieu of ITC". This is likely an incomplete and potentially misleading description. The Treasury Guidance is clear that the grant program is intended to "temporarily fill the gap created by the diminished investor demand for *tax credits*." [Emphasis added.]

The title of §1603 is, "Grants for Specified Energy Property in Lieu of Tax Credits". It is not specific to either ITCs or PTCs. "Specified Energy Property" consists of §45 (PTC) property, including wind, and §48 (ITC) property, including solar. In other words, as the title implies, if a taxpayer is eligible for a tax credit under another section, it is eligible for grant instead of that tax credit.

After the Treasury Guidance was issued, PSE concluded for the reasons set forth above that normalization that was "similar to" §46(f) was required. PSE reviewed the use of a 10-year normalization period, instead of the §46(f) default to book life of the plant (i.e. 25 years in the case of a wind farm), to test whether a 10-year life would be economically similar to the PTC.

H. Economic Equivalence Meets the “Similar to” Standard

For the Wild Horse Expansion Project such analysis demonstrates that the benefits associated with the Treasury Grant are economically equivalent to the PTCs when the qualifying costs are approximately 95% of total project costs and project production annual plant capacity factors are generally not greater than 35%. Actual qualifying costs for any particular plant will be slightly more or slightly less depending on the eligible construction cost criteria. The 10-year normalization period is also plainly equivalent to the time period that PTCs can be generated by a qualifying wind plant under §45. Accordingly, analysis indicates that a 10-year normalization period for qualified §46(f) assets most closely produces an economic result that is “similar to” the economic results available to taxpayers who elect the PTC method of benefit delivery for wind projects having the characteristics of those owned, and to be owned, by PSE.

I. Limited Applicability of Section 48 (ITC)

Section 48 has limited applicability to the matters at issue inasmuch as Section 48 only determines the dollar amount of the grant, not the eligibility of property nor the relevant normalization period. Under §1603, a taxpayer such as PSE that has a wind project that qualifies under §45 for PTC becomes eligible for the Treasury Grant. Section 1603 requires the taxpayer to use the rules of §48 (ITC rules) to determine the *amount* of the Grant. Both the Grant and the ITC are cost based calculations, and thus, §1603 borrows those rules to calculate the *amount* of the Grant. *At no time does PSE become subject to the ITC rules of §48 for purposes of determining eligibility to receive a grant on a wind farm.*

A taxpayer may, but is not required to, elect out of PTCs and into ITCs for a wind project. This additional election option was added to §48 by the ARRA.

The ITC election under §48 is not required in order to receive a grant in exchange for PTC. In fact, because such an election is irrevocable, an ITC election appears to preclude the taxpayer from receiving a Treasury Grant once such election is made.

PSE intends to receive one or more Treasury Grants because it has eligible wind project assets under §45, not because it plans to receive a Treasury Grant in lieu of ITC. To the contrary, PSE plans to elect to receive a Treasury Grant in lieu of PTC.

J. Solar Projects Differ from Wind Projects because They Are Not Eligible for PTCs.

Solar projects unfortunately add confusion to an already confusing context for interpreting ARRA and normalization requirements with respect to Treasury Grants for utility owned wind projects. In contrast to wind projects, solar projects are clearly not eligible for PTCs. A solar project is only eligible for ITCs. If a solar project is eligible

for ITC, however, a taxpayer can elect to receive a Treasury Grant in lieu of the ITC benefit. Given the construction of §1603, the Treasury Grant calculation for a solar project would be identical to the ITC calculation. In short, because there is no PTC alternative available to a solar project, if a Grant is elected, it would be elected in lieu of ITC. This is the fact pattern assumed in much of the accounting guidance.

K. Distinguishing Utility Facts

The 10-year normalization of Treasury Grants for wind projects is particularly important to PSE customers for the following reasons.

First, PSE is developing resources that are eligible for PTC that are intended to serve the native retail load of the regulated utility. In 2004, PSE received a PLR confirming its eligibility to receive PTCs and a determination that its retail customers constitute unrelated third parties within the meaning of the IRC. A small number of regulated utilities have followed PSE's lead and are developing wind projects to serve their retail customers and to meet applicable state law with respect to renewable portfolio standards. Other larger, prominent utility holding companies are developing wind projects in their non-regulated subsidiaries. Only regulated utilities are required to normalize Treasury Grant benefits, placing them and their retail customers at a significant cost disadvantage if the "similar to" standard is not adopted for ratemaking purposes.

Second, Treasury Grants are attractive to regulated utilities that have no tax appetite for PTCs. As a "first mover" in utility-owned wind projects, PSE has two wind farms in its regulated utility and cannot timely use all of its PTCs when they are generated. In contrast, other utilities are just beginning to consider developing their first wind project, and as a consequence, PTCs remain a viable option provided they have available taxable income.

Third, a utility would need to be looking at wind projects with an annual capacity factor in the low 30's for the Treasury Grant to be as attractive as the PTC. The capacity factor for PSE's wind farms are in this range. If a utility is considering a wind project with a capacity factor in the low 40's, the present value of a 30% grant is much less than the present value of the PTC, which would make any amount of normalization uneconomic.

Finally, PSE will receive an order from the WUTC directing that the Treasury Grant be normalized for ratemaking purposes over a 10-year period, thus conforming to the "similar to" standard.

L. Application of SFAS 5 and the Normalization Requirement

The Requirement

SFAS 5, paragraph 8, provides

An estimated loss from a loss contingency ... shall be accrued by a charge to income if both of the following conditions are met:

- a) Information available before the issuance of the financial statements indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements. It is implicit in this condition that it must be probable that one or more future events will occur confirming the fact of the loss.
- b) The amount of the loss can be reasonably estimated.

The last sentence in FAS 5, paragraph 10, provides

Disclosure is not required for an unasserted claim or assessment when there has been no manifestation by a potential claimant of an awareness of a possible claim or assessment unless it is considered probable that a claim will be asserted and there is a reasonable possibility that the outcome will be unfavorable.

Discussion and Interpretation

For the Company to be subject to the provisions of FAS 5, an assumption must be made that the Company has at some point become subject to a "loss contingency" with respect to its treatment of the Treasury Grant. Such assumption could only be satisfied if the Company were to now conclude that its normalization methodology would likely be judged impermissible by the governmental authorities. To carry such hypothetical conclusion further, the governmental authorities would need to conclude: (1) that the Company's normalization methodology was a violation of normalization principles, (2) that normalization sanctions would apply, AND (3) that those sanctions would be the financial responsibility of the Company and ultimately those of the regulated retail customers who directly benefit from grant proceeds.

Such conclusion is not reasonably reached for the following reasons:

- a. For a liability to exist, it must have a party in interest to assert it. In the case of the Company's normalization methodology, there is notable ambiguity in the underlying statute. As a result of that ambiguity, the Company met with the IRS and Treasury. Our discussions covered many topics, including the normalization methodology that the Company has adopted, as approved by its regulator, the WUTC. The IRS and Treasury were receptive to our methodology approach. In addition, both stated that

the Treasury Grant program was NOT a tax program and that they would not be auditing or issuing rulings on it. It would be extremely unlikely for such parties to challenge the Company's methodology. It is conceivable that the Department of Energy or the Department of Justice could challenge it. However, neither organization has the staff or expertise in normalization or regulatory accounting. We conclude, therefore, it is very unlikely that any of the above mentioned agencies would question the Company's normalization methodology. Accordingly, absence of assertion results in no obligation to record a loss contingency and no required disclosure under SFAS 5.

- b. In the event the government were to assert a claim that questioned the Company's normalization methodology, it would have to develop a clear, unambiguous meaning to the phrase "similar to the rules of section 50". "Similar to" can not mean "identical to". The IRS and Treasury do not have a clear, unambiguous statutory definition with which to support a challenge to the Company's reasonably supported interpretation of such clause. The Company knows this with great certainty because we discussed our understanding with them and the Company's interpretation sounded "similar to the rules of section 50" to them.

Customary Practice of Tax Law Interpretation. Frequently when there is ambiguity in a statute, the courts rule in favor of the taxpayer. Such judicial practice should inform our interpretation of risk here, especially in light of the Treasury Guidance. In the Guidance, the Treasury had the opportunity to clearly spell out the normalization methodology that it would require. It elected not to do so. Instead, it perpetuated the ambiguity. The Company believes this is so because there is flexibility allowed by §1603.

Legislative Intent Must Guide Any Interpretation of Applicable Normalization Period. For the government to assert a longer normalization period for Section 45 wind property than the established PTC recognition period would appear to be clearly counter to the stated public policy of the Treasury Grant program, and indeed, would rest on no apparent statutory language for such a contravening interpretation. In addition, it would be contrary to the Treasury's interpretation of almost every other provision of Section 50, which interpretations have been very taxpayer-favorable (see the Dewey memo).

Thus, management believes that it is remote that the government would challenge the Company's normalization methodology.

- c. Recapture Risk is De Minimus. If, for the sake of argument, the Company's normalization methodology were to be found lacking, neither §1603 nor the Treasury Guidance allows for recapture of the Grant for normalization. The recapture provisions focus on having a qualified taxpayer and a qualified project. PSE is a qualified taxpayer, as §1603 lists disqualified taxpayers and PSE does not fit on that list. PSE's wind projects are qualified projects under §45. Therefore, the recapture provisions apparently would not apply.

However, in the Terms and Conditions that the Treasury issued along with the Application, Section 8(a) discusses Disallowances:

If the applicant *materially* fails to comply with any terms of the award, whether stated in a Federal statute or regulation, program guidance, these Terms and Conditions, or a notice of award, Treasury may take any remedial action that is legally available including disallowing all or a part of the Section 1603 payment. [Emphasis added.]

No guidance has been provided on *materiality*. It seems unlikely that the regulatory accounting treatment of the grant would be considered to be material to the Treasury Grant program. In the Company's situation the question would likely be phrased, "Does the Company's normalization methodology materially fail to be similar to §46(f) when it is identical to §46(f) in every way, but for the normalization period?" The Company has answered that question in the negative based on statutory language, the Treasury Guidance, discussions with IRS and Treasury, and consultations with E&Y and Dewey LeBoeuf.

- d. Violation Remedy Not Likely to be Recapture. If it is assumed that the Company's normalization methodology is found lacking, it does not automatically follow that a normalization violation has occurred. Under the IRC, the potential sanction for a normalization violation is a loss of the tax benefit (e.g. for ITC, it would mean loss of the credit; for accelerated depreciation, it would mean loss of accelerated depreciation). However, the Treasury Grant is not a tax benefit, so it is not clear what the sanction might be. In theory, it could result in loss of the Grant, but neither the ARRA, the Treasury Guidance, nor the IRC indicate such a result.

Under the IRC, in order for a normalization violation to incur any sanction, a taxpayer must have an *insistent* violation of the normalization provisions. Such intent is wholly lacking at PSE. In fact, the Company can, and would, demonstrate the diligence that it has exercised to ensure that its normalization methodology complies with the statutory requirements. That diligence includes discussions with the IRS and Treasury and complete disclosure on the Application.

The Company is not aware of any case where the IRS revoked the ITC from a taxpayer due to a normalization violation. While such a sanction is potentially possible in the IRC, it is rarely, if ever, invoked.

Over the years, the IRS has issued many private letter rulings to taxpayers concerning ITC normalization. The most recent rulings demonstrate that the IRS is loath to impose sanctions, instead preferring that wayward taxpayers simply begin normalizing their ITC correctly from the current date forward. In fact, the IRS has foregone the opportunity to impose a look-back true up in an effort to make amends for the past. If normalization were to be an issue for PSE, PSE would arguable be

entitled to the same corrective opportunities that taxpayers currently receive under the ITC provisions of the IRC.

- e. Ultimate Obligations Rest with the Customer/Beneficiary of the Grant. In the remote chance that some sanctions did apply, those sanctions would not be the financial obligation of PSE. Instead those sanctions must fall to PSE's customers. A normalization violation arises when a taxpayer passes a tax benefit to customers more quickly than the IRC allows. In other words, the customers received too much benefit. Therefore, the sanctions must be borne by the customers. For PSE to pay the sanctions out of company funds would simply compound the violation, in that customers received the original benefit and then received the benefit of not paying the sanction. Recoupment of grant monies and/or a forward adjustment in the rate of benefit transfer to the customer would involve a proceeding before the WUTC and the establishment of a regulatory asset to offset whatever the amount of the sanction.

Management believes that no sanctions would apply to the Company in any event and, if sanctions did apply, they would be borne by customers.

- f. SFAS 5 Summary. Based on the foregoing discussion and analysis, the Company concludes that it has no loss contingency under FAS 5 and that no accrual or disclosure is required in the financial statements.

III. Conclusion

In accordance with the guidance in ASC 980-45-25-1c, the Treasury Grant will be treated as a reduction in net allowable cost to be given to customer over 10 years. Initially, the full amount received will be recorded in FERC Account 228.4 "Accumulated miscellaneous operating provision" (which is included in Other Noncurrent Liabilities) and one-tenth of the amount will be transferred to FERC Account 242 "Miscellaneous current and accrued liabilities" (which is included in Current and Accrued Liabilities) in accordance with PSE's accounting petition before the WUTC for FERC reporting. However, for GAAP reporting these accounts will be offset against Utility Plant.

The Treasury Grant will be recorded as a reduction to power costs in FERC Account 557 over the WUTC approved 10-year amortization period. For accounting purposes, the amortization of Treasury Grant should be considered a modification of expenses as it is a replacement for the tax benefit received from PTCs which would have been recorded to tax expense.

PSE will include one-tenth of the Treasury Grant in Tariff Schedule 95A "Production Tax Credit". Schedule 95A was created in 2005 to provide customers the benefits of PTCs as they are generated and any variations are true-up in the next annual filing, which is October of each year. As a result of the Treasury Grant accounting, PSE will recognize as a credit to power costs one-tenth of the Treasury Grant at the same time the

customers would receive one-tenth of the Treasury Grant via the Schedule 95A. Thus, there would be no net effect to the income statement.

Exhibit V
Pricewaterhouse Cooper Memorandum
Re: Treatment of Treasury Grant

Formal Consultation Memo

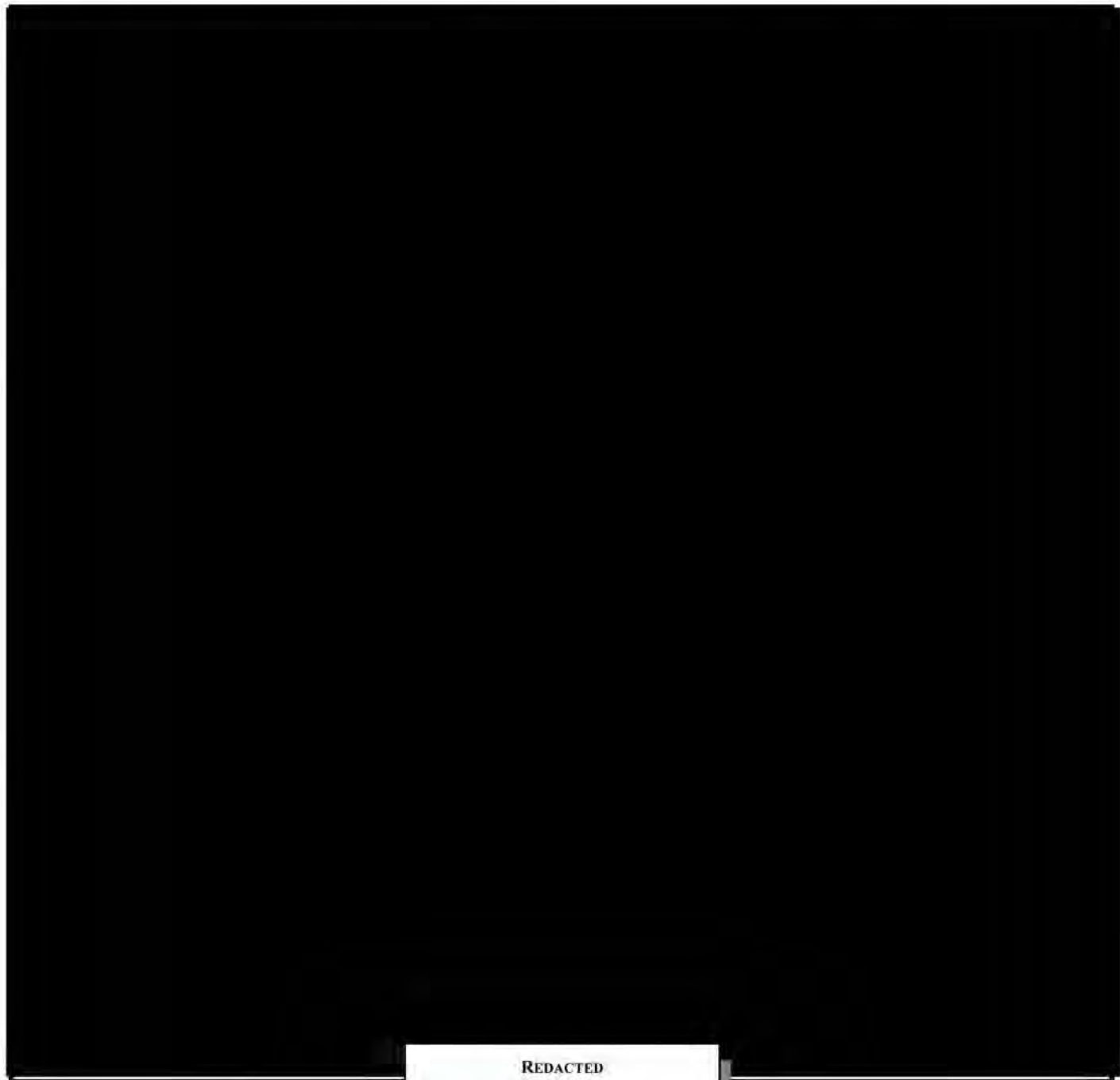
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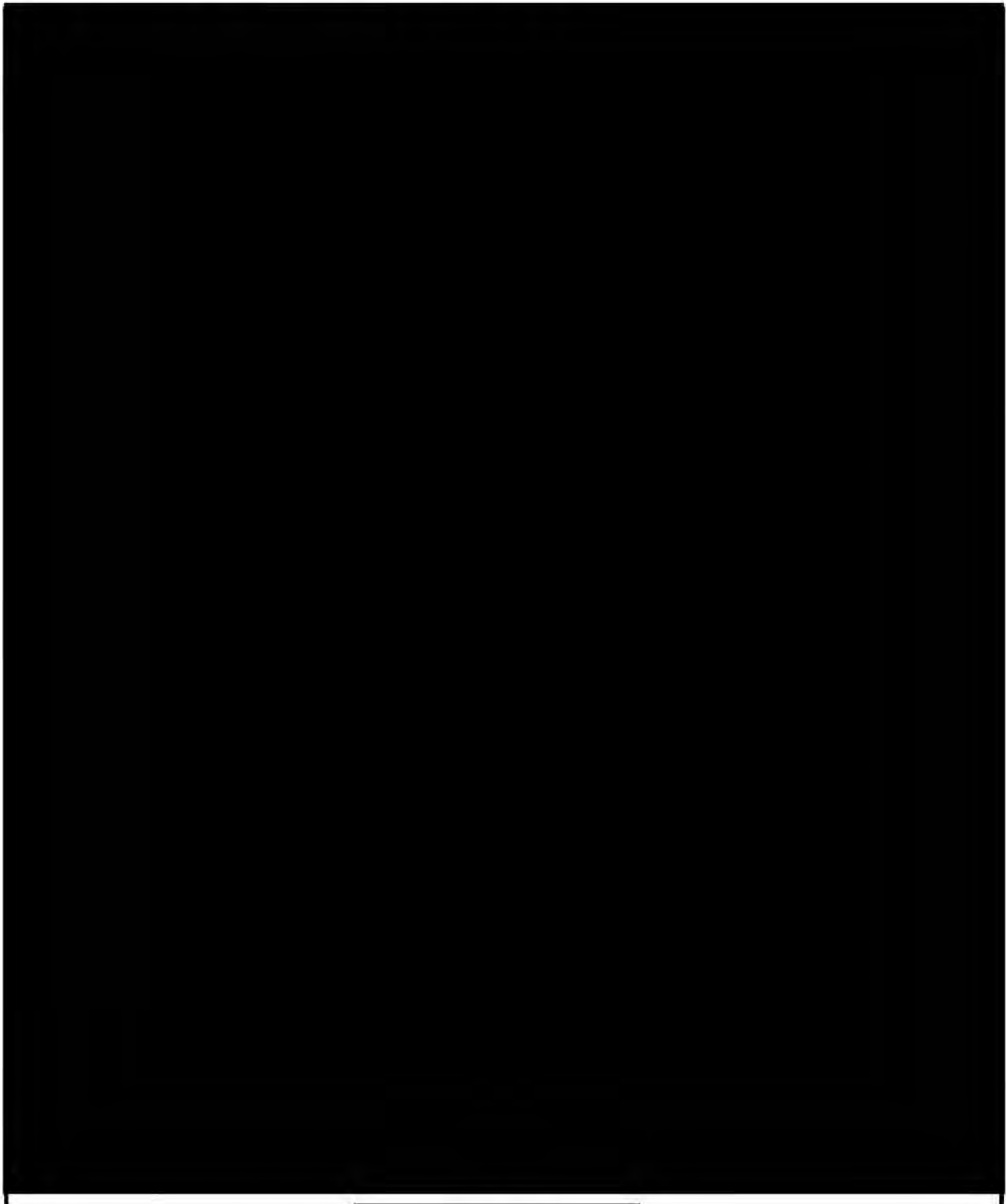
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Manager: Steve Krump

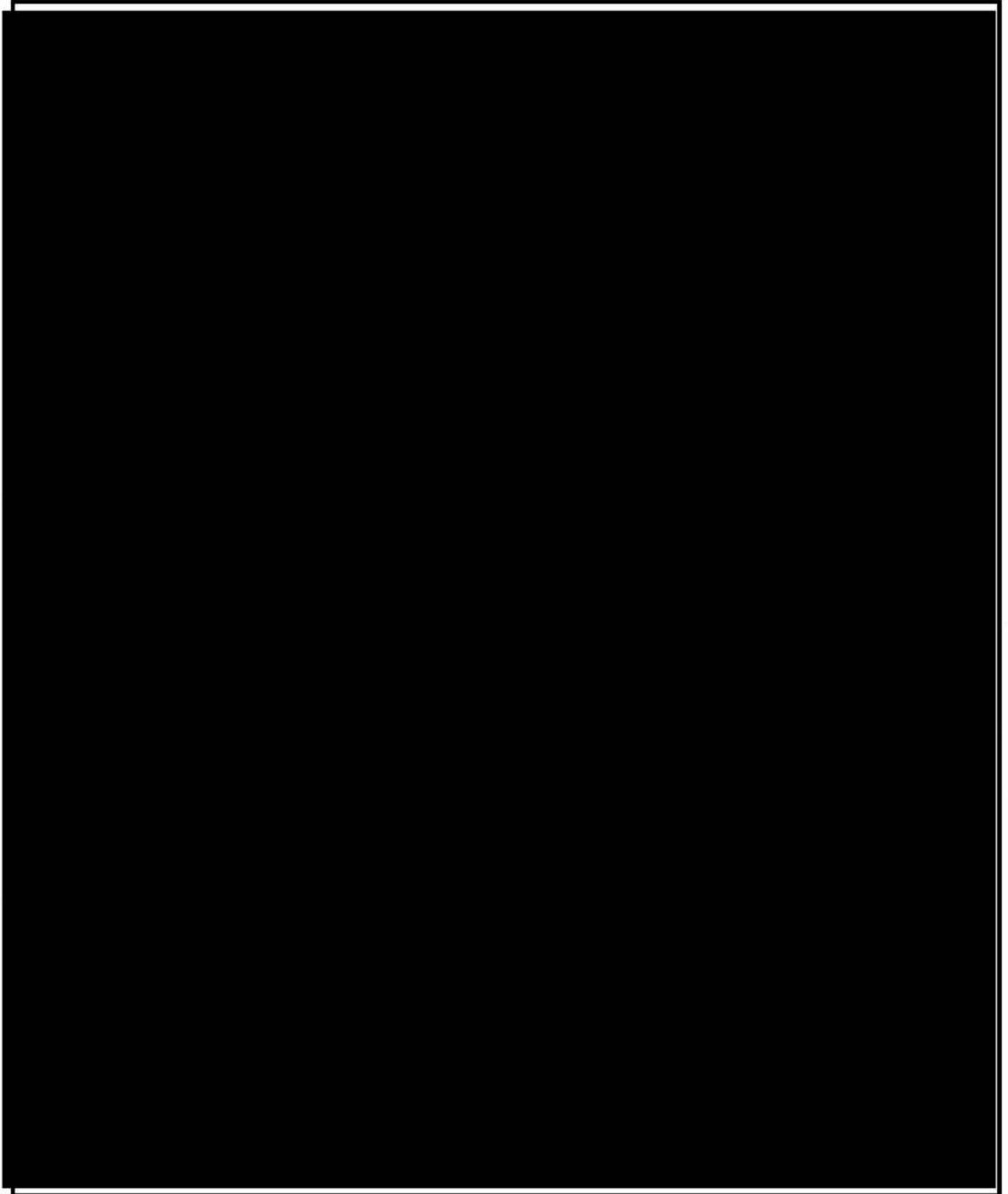
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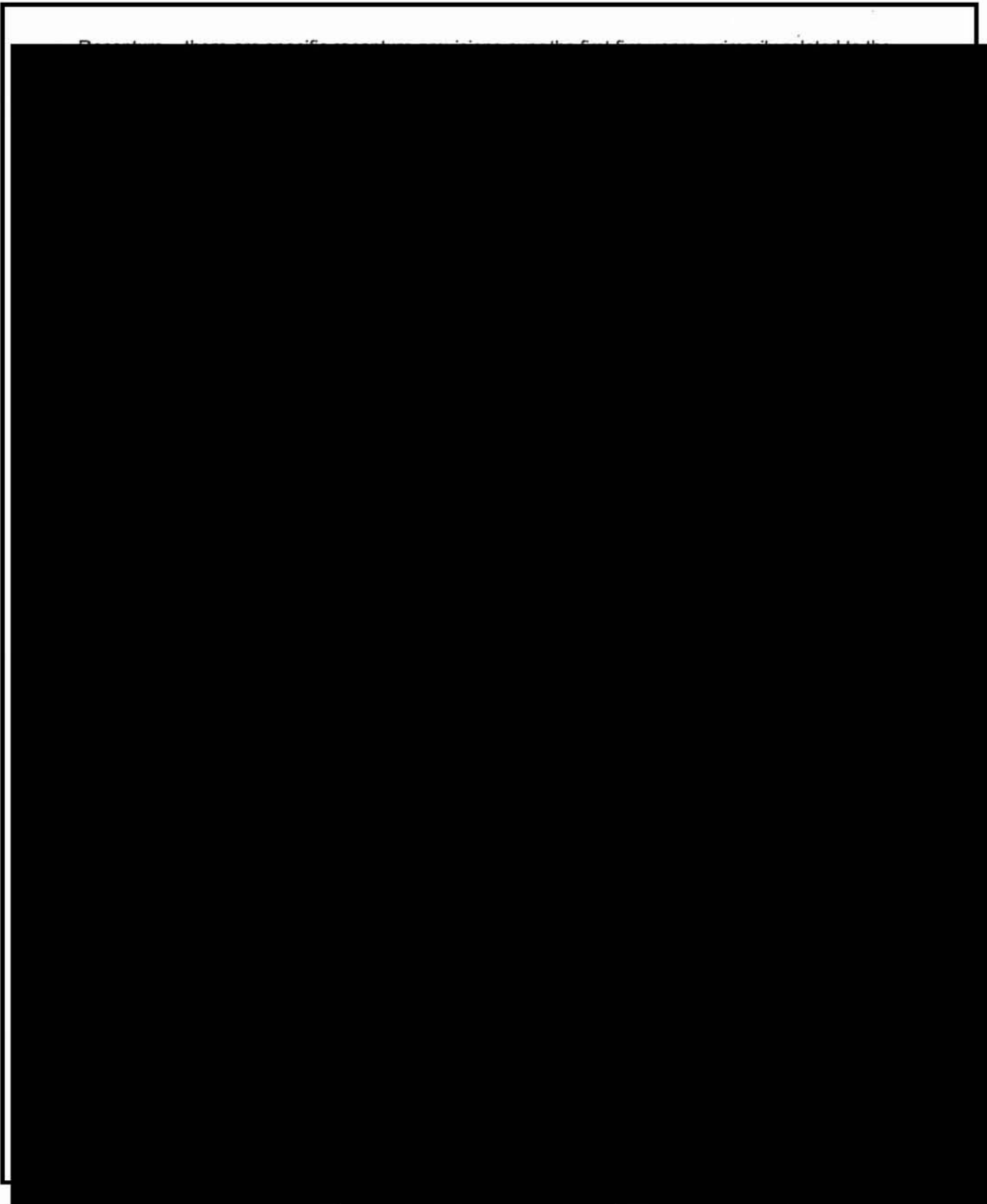
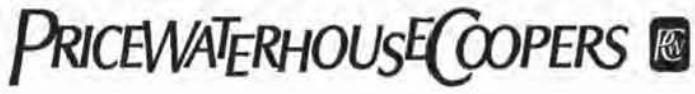
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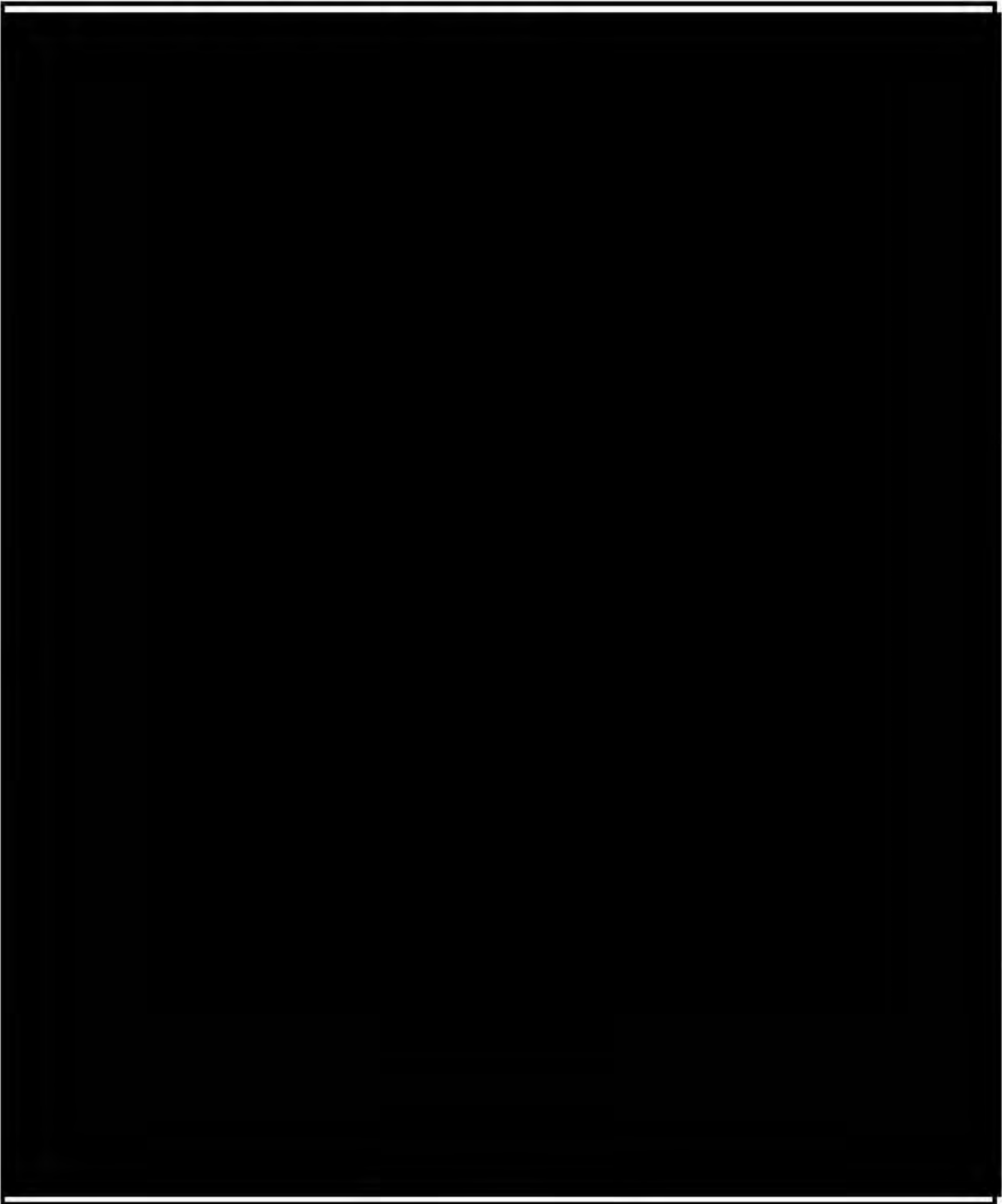
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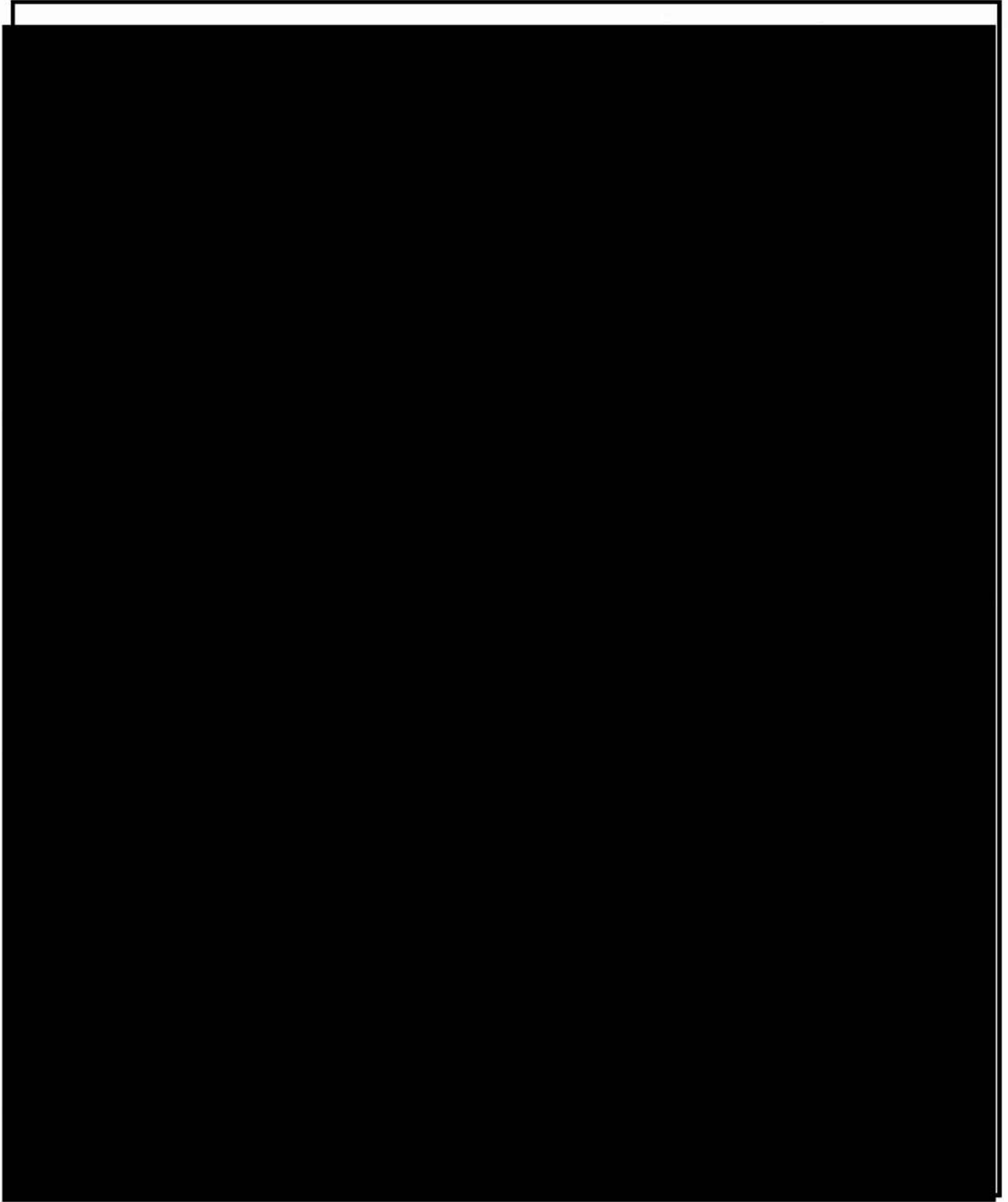
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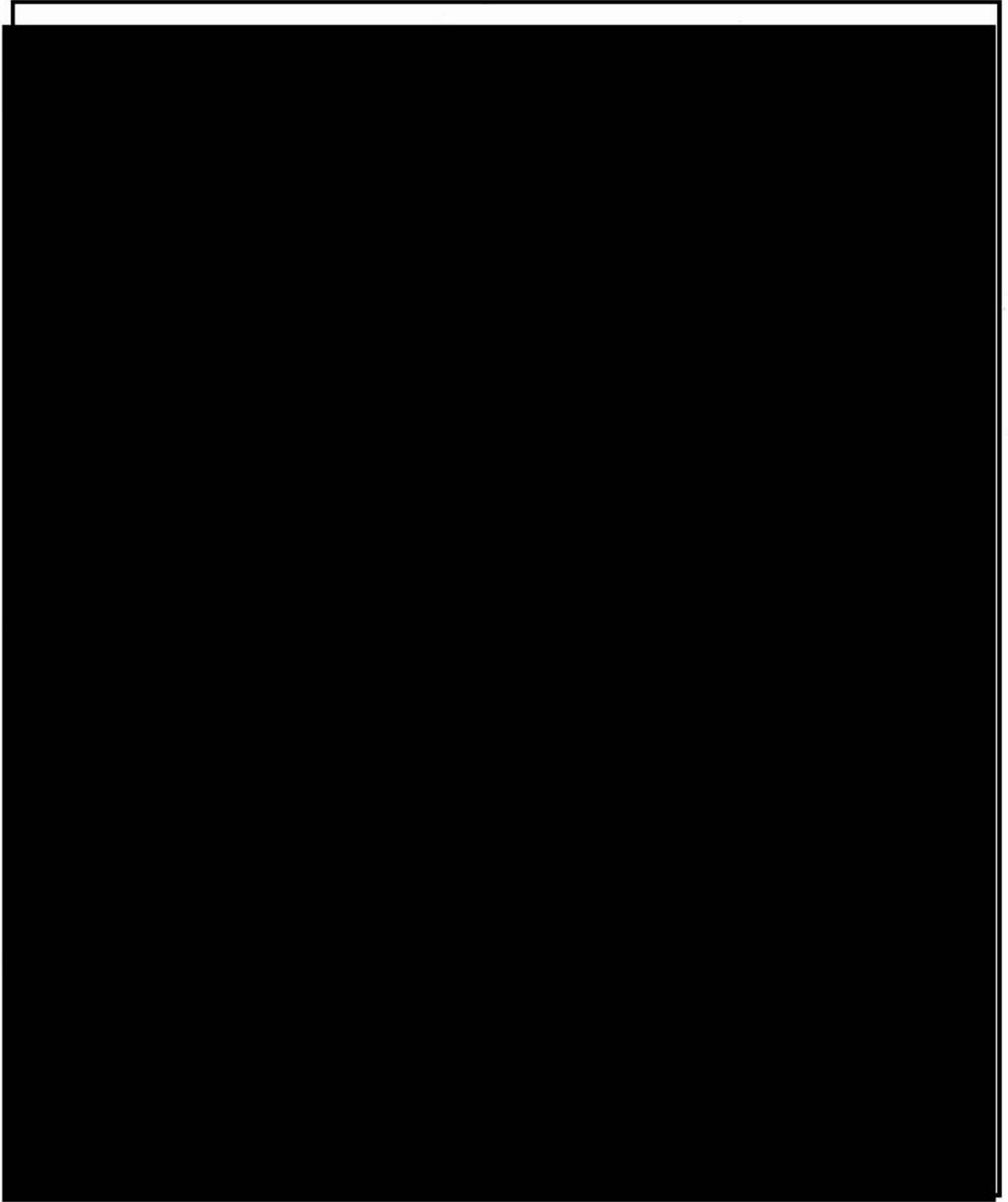
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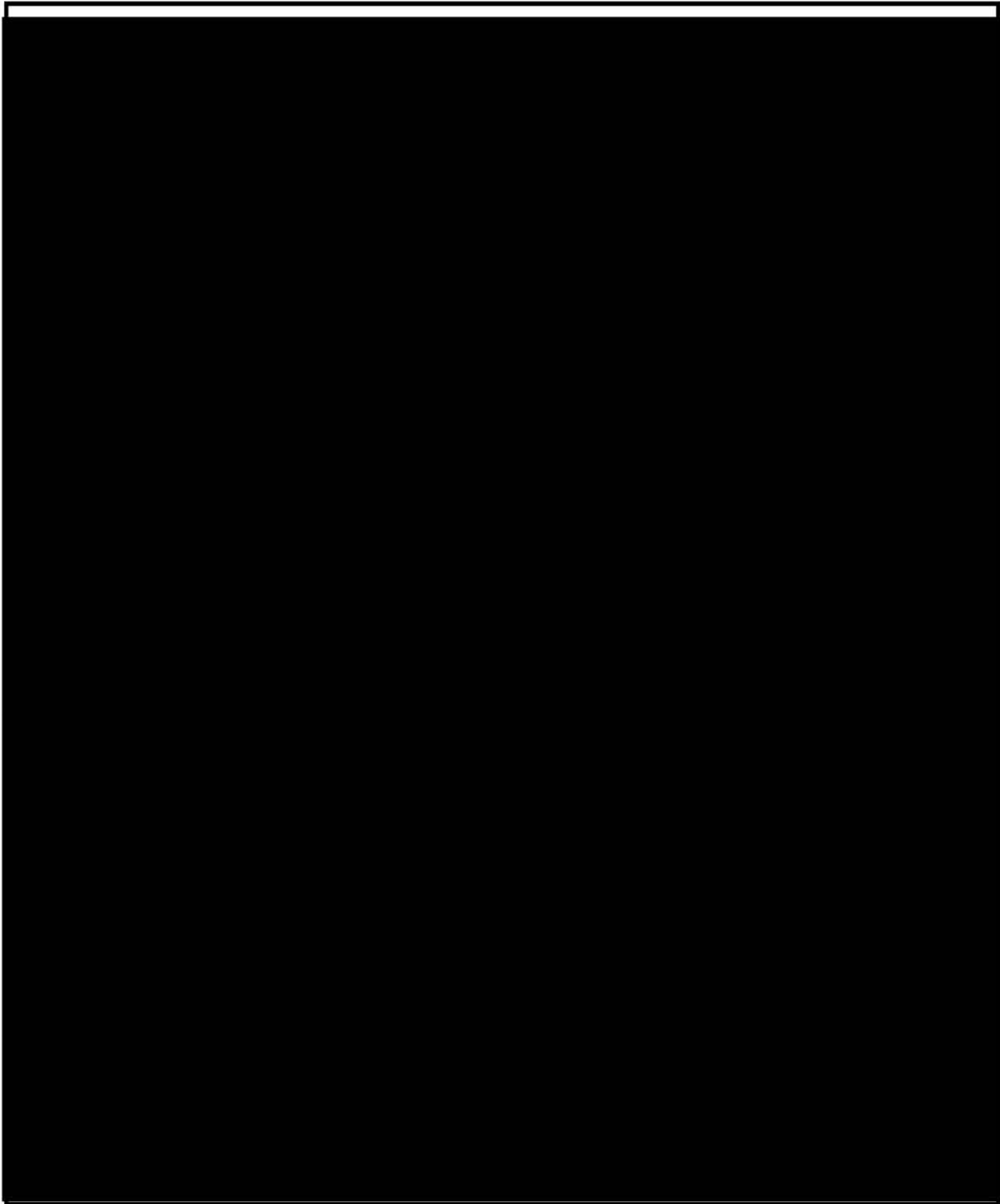
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Exhibit W
Risk Analysis

The Company maintains an Enterprise Risk Management Policy ("ERM") in Policy 13 of the Corporate Policy Manual ("CPM-13"). CPM-13 articulates the policies and procedures the Company uses to manage its ERM responsibilities. Pursuant to CPM-13, PSE identified and developed management actions regarding incremental risks associated with the Lower Snake River Wind Project, Phase I ("Phase I" or "Project"). PSE's risks associated with the Project vary in nature and extent based on the stage of the Project. There are three principal stages of the Project with unique risk profiles, as follows:

- A. Pre-Construction Stage
- B. Construction Stage
- C. Operations Stage

PSE has identified these risks associated with each Project stage and developed plans to eliminate or mitigate them to the maximum extent that is commercially reasonable and practicable. This exhibit describes these identified risks and their proposed mitigation.

A. Pre-Construction Stage

The Pre-Construction Stage began in August 2009, when PSE acquired the development rights, and extends until the Balance of Plant ("BOP") contractor is issued a Notice to Proceed ("NTP") for Phase I construction. The following table describes the risks associated with this stage of the Project:

Table 1. Pre-Construction Stage

Risk Area	Risk Description	Mitigation
Permitting	Appeal of the Conditional Use Permit	This risk has been mitigated as the Conditional Use Permit was issued by the Garfield County Hearings Examiner on November 25, 2009. The 21 day appeal period following the Hearing Examiner's decision passed with no appeals filed.
NEPA Record of Decision	Schedule delays due to not acquiring the Record of Decision in time to begin construction work on Central Ferry substation	This risk has been mitigated as BPA issued its Record of Decision on January 28, 2010 allowing construction work on Central Ferry substation to commence.
Large Generator Interconnection Agreement	Inability to reach definitive agreement in acceptable form with BPA	This risk has been mitigated as LGIA negotiations are complete; the Agreement will be executed following Board approval.
Turbine Supply Agreement and Service & Maintenance Agreement	Inability to reach definitive agreement in acceptable form with Siemens	This risk has been mitigated as TSA and SMA negotiations are complete; the Agreements will be executed following Board approval.
Balance of Plant Agreement	Inability to reach definitive agreements in an acceptable form, and unwillingness for RES Construction to provide flexibility surrounding the NTP date	This risk has been mitigated as BOP negotiations are complete; the Agreement will be executed following Board approval.
Transmission	Delays in transmission improvements curtail Project output	PSE has 250 MW of firm transmission rights as of dates certain. With respect to the remaining 93 MW, BPA must construct the West of McNary and Central Ferry-Lower Monumental upgrades. BPA is highly incented to complete transmission projects that will facilitate more renewable power in the region and has Stimulus Bill funding.

Risk Area	Risk Description	Mitigation
Project Economics	Stranded cost due to changes in development plan	PSE would seek recovery of stranded costs if and when they occur via accounting petitions or rate filings.
Renewable Incentives	Uncertainty around implementation of Stimulus Bill provisions	<ul style="list-style-type: none"> • Five-year plan economics assume normalization of grant with 10-year amortization. • Treasury has issued clarifying rules related to start of construction and definition of qualified property. PSE has shifted more qualifying work from 2011 to 2010 in order to ensure that the grant remains an option for the Project for the benefit of customers. • PSE is working with Congress on a legislative fix to eliminate the normalization requirement, which would further benefit Project economics for customers.
Change in Law <ul style="list-style-type: none"> • Repeal RPS • Tax law changes 	Legislation repeals State RPS or unfavorably modifies Stimulus Bill provisions	<ul style="list-style-type: none"> • Active lobbying efforts at state and federal level • Likelihood of future green house gas ("GHG") legislation and federal RPS should increase value of renewables in portfolio

B. Construction Stage

The Construction Stage of the Project commences when a NTP is issued to WTG supplier (Siemens) under the Turbine Supply Agreement ("TSA") and to the BOP contractor (RES) under the BOP Agreement.

The principal risks in this stage relate to the potential for delays in BPA's Central Ferry substation construction schedule, which could delay PSE's WTG commissioning schedule, and the risk of price escalation for the portion of the BOP contract that is not fixed upon signing.

To mitigate the risk of delays in BPA's substation construction schedule, PSE plans to proceed with turbine pre-commissioning before Central Ferry substation energization by using portable generators. Additionally, PSE is funding BPA in advance for Central Ferry work to support an on-time schedule. Provisions that could enable acceleration of the Central Ferry construction schedule, such as providing additional funds for early completion, are set forth in a letter agreement with BPA with the intent of reducing the risk of schedule slippage. PSE and BPA have also agreed in principal that, upon selection by BPA of its construction contractor, status reports and project meetings will be scheduled on a regular basis between the two parties.

Once the BOP Agreement is signed, \$ million of the total BOP budget will be fixed. The remaining BOP budget is subject to price escalation due to an open-book contract process, which "closes" over a period of time. To reduce the risk of price escalation, PSE and RES have developed detailed and thorough BOP cost estimates. This risk is further limited due to the relatively short construction timeframe in which prices could escalate. It is expected that by December 2010 the entire BOP Agreement price will be fixed, with RES then responsible for any cost overruns.

Siemens will be responsible for supply, transport, installation and erection, and commissioning of the WTG's. Weather conditions at the site can be challenging once the snow season starts. To ensure construction occurs in a timely fashion during the projected construction window, PSE has negotiated liquidated damages from responsible parties if they cause delays.

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Individual wind turbines will be commissioned generally in groups, or strings, based on the collection system feeder arrangement. Energizing a feeder requires that the interconnection with BPA be made. Further, the site substation and step-up transformer work needs to be completed in a timely fashion.

The following table summarizes the risks during the Construction Stage of the Project:

Table 2. Construction Stage

Risk Area	Risk Description	Mitigation
Capital Budget	BOP price escalation	Once the BOP Agreement is signed, \$ million of the total BOP budget will be fixed. The remaining BOP budget is subject to price escalation due to an open book contract process. PSE and RES have developed detailed and thorough BOP cost estimates. This risk is limited due to the relatively short construction timeframe in which prices could escalate.
Construction Schedule	Delayed project start or early winter	RES is currently mobilized onsite and has begun construction work on the Central Ferry substation access road under a Limited Notice to Proceed ("LNTP"). Construction work on the remainder of Phase I is set to proceed upon Board approval. Additionally, PSE Project Management has been actively involved in the construction planning and scheduling process.
Construction Schedule	Delays in BPA Construction and Energization of Central Ferry substation	<ul style="list-style-type: none"> ▪ PSE plans to proceed with turbine pre-commissioning before Central Ferry substation energization using portable generators. ▪ PSE is funding BPA in advance for Central Ferry work to support an on-time schedule. Provisions that could enable acceleration of the Central Ferry construction schedule, such as providing additional funds for early completion, are set forth in a letter agreement with BPA with the intent of reducing the risk of schedule slippage. ▪ PSE and BPA have agreed in principal that, upon selection by BPA of its construction contractor, status reports and meetings will be scheduled on a regular basis.

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Risk Area	Risk Description	Mitigation
Construction Schedule	Turbine supplier fails to deliver in a timely fashion	Siemens has more than 25 years of continuous presence in the wind industry and is a leading provider of wind turbines worldwide, with more than 7,800 turbines currently in operation. Given the company's track record, PSE expects turbines to be delivered in a timely fashion. In the event of delay, liquidated damage penalties have been negotiated to compensate PSE.
Construction Schedule	Transportation accidents	Siemens supplies insurance for transit and maintains risk of loss until site delivery.
Construction Schedule	BOP contractor fails to complete construction	PSE has obtained guarantees from RES in the form of a performance bond and parent guarantee.
Construction Schedule	Construction accidents	Builder's all-risk insurance with PSE as a named insured.
Construction Schedule	Erection delay	PSE has obtained delay liquidated damages sufficient to cover substantially all of the cost of carrying the Project at its fully funded level from Siemens and RES. The selection of Siemens as a qualified turbine erection contractor, coupled with a liquidated damages package provides assurance that the schedule will be met and keeps PSE whole in the event of delays.
Construction Schedule	Tax implications of a delayed COD	Current law requires that the Project achieve commercial operation by December 31, 2012 in order for PSE to qualify for the Treasury grant or other renewable incentives. In the event of unforeseen conditions or circumstances prohibiting COD by that date (which would require 7-1/2 months of delay) PSE would energize individual turbine strings to achieve operational status for incentive purposes.
Capital Budget	Cost overruns exceed budget estimate	Once the TSA is signed, [REDACTED] of the project budget will be fixed. To ensure BOP costs do not exceed the budgeted amount, PSE has included contract provisions that put the risk of construction overruns on the contractor.

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C. Operations Stage

The Project enters the Operations Stage once substantial completion is achieved. Wind turbines are commissioned in groups according to the strings associated with collection system feeders. As each wind turbine is placed into service, the wind turbine substantial completion milestone is met. When all turbines have been commissioned, the Project will have met the Project substantial completion milestone.

The principal risks in this stage relate to the Project not meeting performance expectations, resulting in lost production. The reasons for this could include poor wind conditions over the long-term, the WTGs being unable to meet performance projections, or mechanical availability problems with the equipment. PSE has mitigated these risks through contractual remedies in the Service and Maintenance Agreement ("SMA") with Siemens. Equipment performance, both initial and ongoing, is subject to warranty by Siemens during the five-year warranty period and subject to incentives and penalties in the SMA. With respect to the long-term wind resource, PSE's mitigation is thorough due diligence on the wind resource projection by independent industry experts, as well as leveraging experience from the existing, adjacent Hopkins Ridge Project.

The following table summarizes the risks during the Operations Stage of the Project:

Table 3. Operation Stage

Risk Area	Risk Description	Mitigation
Intellectual Property	Patent challenge to technology embodied in certain components of the SWT 2.3 MW turbine	Siemens will indemnify PSE against any infringement claims. In the event of infringement, Siemens will procure the appropriate rights, replace the infringing equipment, or modify it. Siemens has successfully deployed a large number of its 93-meter rotor diameter version of the SWT 2.3 unit and a few of the 101-meter versions in the US without any infringement issues.
Rate Recovery	Failure to obtain favorable rate treatment from WUTC of PSE's investment in the Project.	As part of a recommendation to the Board of Directors to proceed with Phase I, rigorous financial analysis documentation has been included which demonstrates that the Project is a least cost resource.
Project Under-Performance	Poor initial long-term wind projection	Independent energy estimate by an industry expert DNV-GEC. Note: In the event of wind resource projection error, it could take several years to identify such error based on inter-annual wind variability.
Project Under-Performance	Upwind conditions change	Phases II and III, if built-out, will be upwind of Phase I. DNV-GEC, in its March 2010 Wind Resource Energy Assessment Report, analyzed the potential energy affects on Phase I if either Phase II, Phase III, or both are built out in addition to Phase I. The capacity factor for Phase I is [REDACTED] DNV-GEC's report indicates that the net capacity factor for Phase I would decrease to [REDACTED] if only Phase II was built-out, [REDACTED] if only Phase III was built-out, and [REDACTED] if both Phases II and III were built out.
Resource Change	Site wind resource change; climate change	Unable to mitigate. However, it is possible climate change could have the effect of making all wind resources more valuable than presently envisioned.
Turbine Availability	Low availability from any cause	PSE has negotiated an availability guarantee of [REDACTED] for five years of the Service and Maintenance Agreement. Siemens will pay liquidated damages due to availability below 96%.

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Risk Area	Risk Description	Mitigation
Turbine Performance	WTG serial failure	Under the Service and Maintenance Agreement there are detailed preventative maintenance programs in place. Siemens is obligated to repair or replace any defective component without cost or expense to PSE.
Turbine Failure	WTG failures during warranty period	PSE is protected by the five year mechanical warranty with Siemens.
Turbine Failure	WTG failures after warranty period	Siemens has secured Det Norske Veritas certification affirming that the Siemens SWT 2.3 MW WTG is designed and manufactured for a 20-year life in Class I wind conditions, the harshest wind class.
Lightning Strikes	Multiple causes, such as dirty blades, controller performance	Under the Service and Maintenance Agreement there are detailed preventative maintenance programs in place.