X. Plan Maintenance

The DME Pandemic Preparedness Plan is a dynamic document and will be reviewed and updated on an annual basis to reflect new developments and requirements relating to a pandemic event. It may be exercised to identify operating challenges and promote effective implementation. Plan updates may also incorporate changes in response roles, essential business functions and improvements in response measures developed through ongoing planning efforts.

The original plan will be approved by the General Manager. The Group Manager of Fiscal Services will initiate the annual review and approve subsequent revisions, unless deemed significant with appropriate subject matter experts from other divisions. A significant revision is one that changes a concept of operations, results in a large shift in planning and response capabilities or results in a revision more than 30% of the plan in a single revision.

In the event DME is required to file the plan with any regulatory agency, the Energy Management Organization Manager will coordinate the filing process.

XI. Appendices

Appendix A- Links

Centers for Disease Control and Prevention
http://www.cdc.gov/flu/avian/index.htm

PandemicFiu.gov http://www.pandemicflu.gov
http://www.pandemicflu.gov/plan/ (Planning Templates)

US Department of Health & Human Services
http://www.hhs.gov/pandemicflu/plan/ (US Response Plan)
http://www.hhs.gov/flu/ (Information on Seasonal Flu)

World Health Organization
http://www.who.int/csr/disease/avian_influenza/en/index.html

North American Electric Reliability Council (NERC)
http://www.nerc.com/-filez/cipfiles.html (Pandemic Planning Guides)

Appendix B- Power Production:

Appendix C – QSE:

QSE will direct resources toward the monitoring of system status, communication with ERCOT or other controlling authority and development of plans to provide generation resources required sufficient to serve DME load.

Primary responsibility for determining the best practice during an event will reside with the QSE Energy Market Operations Manager. This person will direct staffing levels and work locations based on available resources.

Table of Contents

01 – Purpose

The purpose of this Cyber Security Plan is to describe how Denton Municipal Electric (DME) governs specific areas and security controls in its cyber security landscape for all low impact Bulk Electric Systems (BES) Cyber Systems (BCS), including security awareness training, physical security controls, electronic access controls, and cyber security incident response planning (CIP-003-8 R2) .

02 – Scope and Applicability

This Cyber Security Plan is applicable to all low impact BCSs and its associated assets.

03 – Cyber Security Awareness

DME provides security awareness briefs to individuals who have authorized Electronic Security Perimeter (ESP) access, unescorted Physical Security Perimeter (PSP) access, and BES Cyber System Information (BCSI) access on a quarterly basis. This is delivered online on a quarterly basis. The topics presented in each security awareness episode varies every quarter, and communicates best practices for different areas of cyber and physical security.

[redacted]

04 – Physical Security Controls

[redacted]

05 – Electronic Access Controls

[redacted]

06 – Cyber Security Incident Response

DME uses its DME Plan – Cyber Incident Response Plan (CIRP) to guide the activities in response to a

[redacted]

07 – Change Log

Date	Description	Changed by
April 15, 2019	Initial version	Minh Tran
June 13, 2020	Reviewed/edited for clarity; inserted CIP tag	Cameron Molsbee
April 8, 2021	Performed process review; no changes needed	Cameron Molsbee

08 – Review and Approval

Review and approval of this document must be conducted every 15 calendar months.

CIP Senior Manager or Delegate Review and Approval:

Cameron Molsbee	Electric Compliance Officer	4/8/2021
Signature	Name and Title	Date

DENTON MUNICIPAL ELECTRIC

Energizing tomorrow's community today!

2022 DME Physical Security Plan

Version 1

Divisions of Electric

System Operations, Substations, Operations, Construction, and Engineering

Table of Contents

I. Purpose

This plan is to provide guidance and reference material should there be a physical threat to Denton Municipal Electric. In the event of a physical security threat to DME it is necessary to have a plan in place to address the concerns that are present as quickly as possible. The purpose of this document is to identify the assets that DME is liable for, physical security components, possible threats, and a strategy to protect physical assets. This plan ensures that facilities and personnel are prepared to enable steps necessary to mitigate an emergency, threat, or vulnerability to DME's physical assets. This plan is also in place to ensure reliability of the Bulk Electric System is maintained during a physical security threat. This plan refers to other relevant plans and procedures. All personnel involved in maintaining security of DME's physical assets shall be familiar with the information outlined in this document.

II. Scope

Once a disturbance is recognized, the procedures of this plan should be followed to the extent possible. This plan outlines the appropriate actions necessary to address any physical threat. The existence of this plan is to protect personnel at work, citizens on campus, and critical assets in immediate danger. Each event poses different problems and will warrant different responses. This is a general guide for coping with different situations that arise when dealing with the security of physical assets. Appropriate personnel may need to deviate from this plan in different situations to produce desired results.

III. Definitions

DME – Denton Municipal Electric; a municipal electric utility owned and operated by the City of Denton, TX.

BES – Bulk Electric System

SCADA – Supervisory Control and Data Acquisition

System Operations Personnel – System Operators and Dispatchers that work in the DME System Operations control room

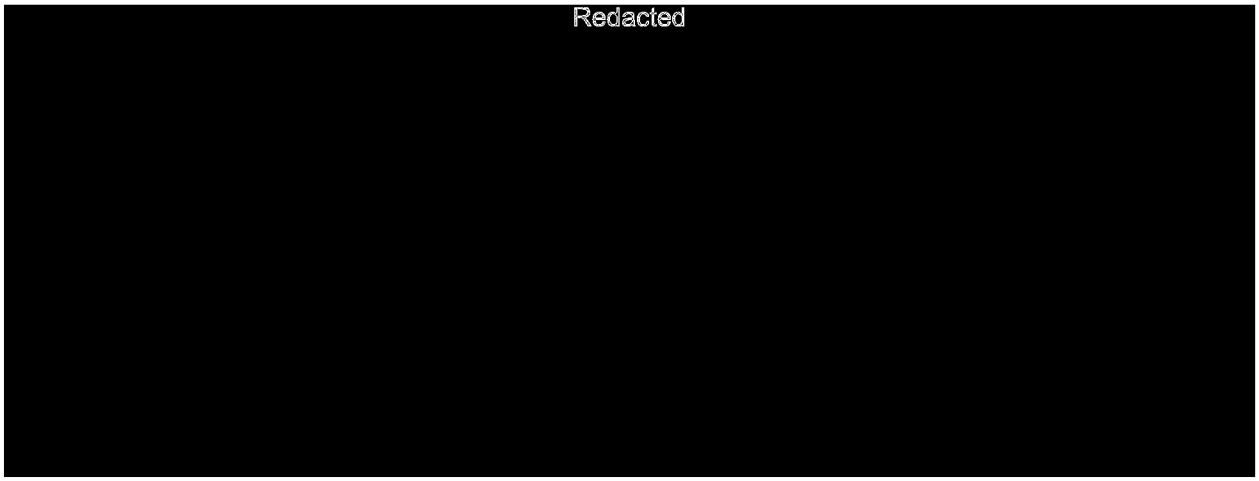
DEC – Denton Energy Center

DME Physical Asset – Any personnel, facilities, systems, or equipment which, if injured, damaged, destroyed, or rendered unavailable would affect the reliability or operability of DME.

IV. Roles and Responsibilities

V. Physical Security Components

There are several different components that are used by DME for physical security that are listed below. These components are used to complement the Physical Security Plan as well as protect all of DME's physical assets. The components listed are used to prevent the breach of any barrier protecting a DME physical asset. This protection is to help eliminate theft, physical damage, or harm to a DME facility or any of its occupants. The physical security components include:



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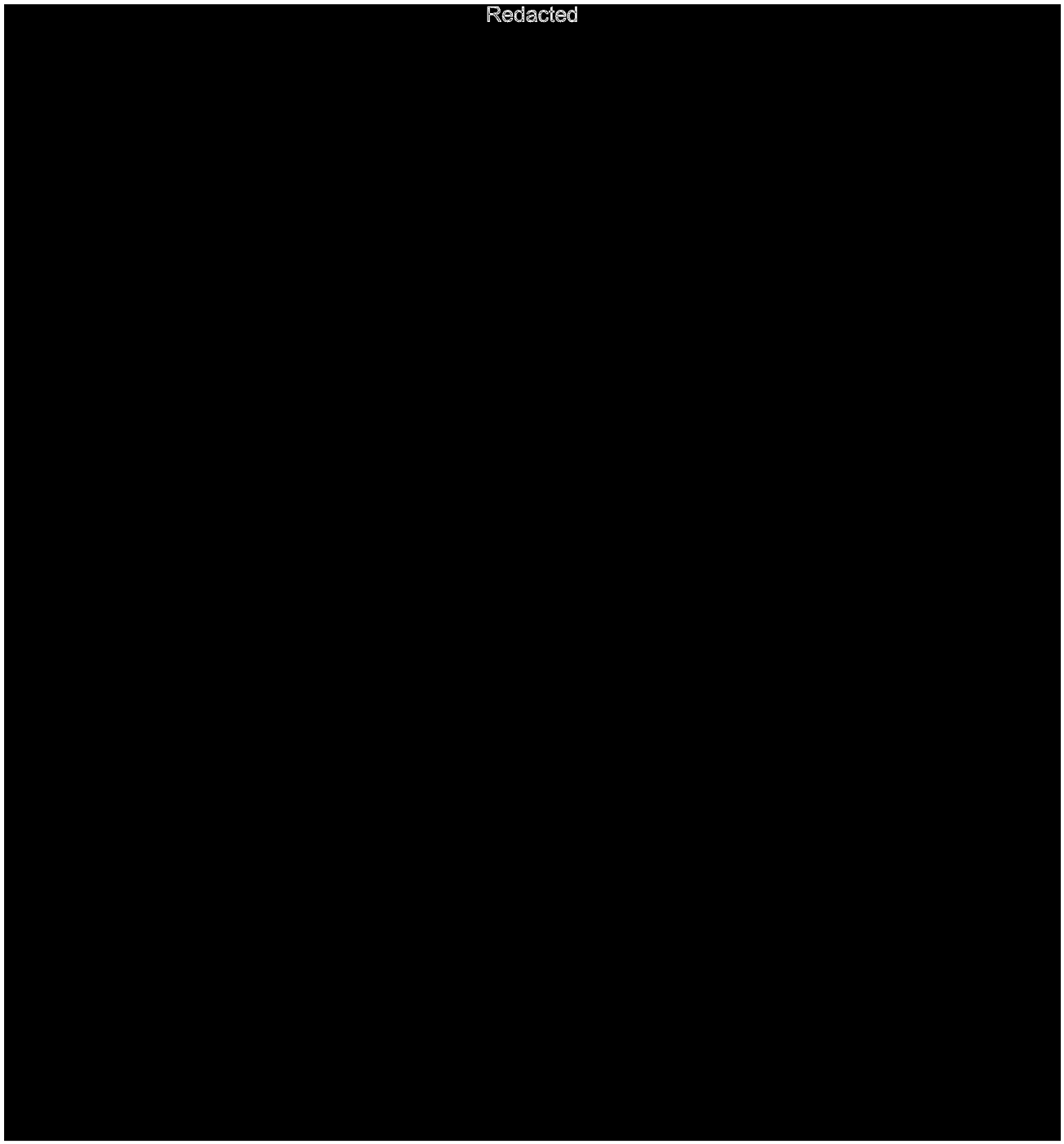

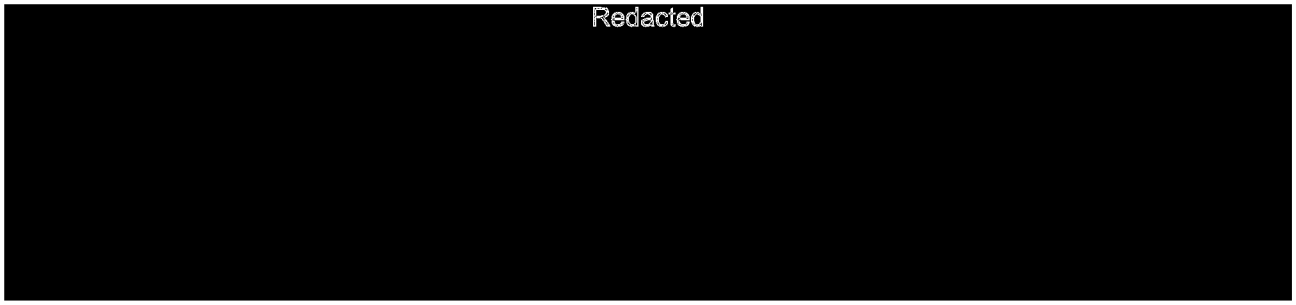

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VI. Strategies

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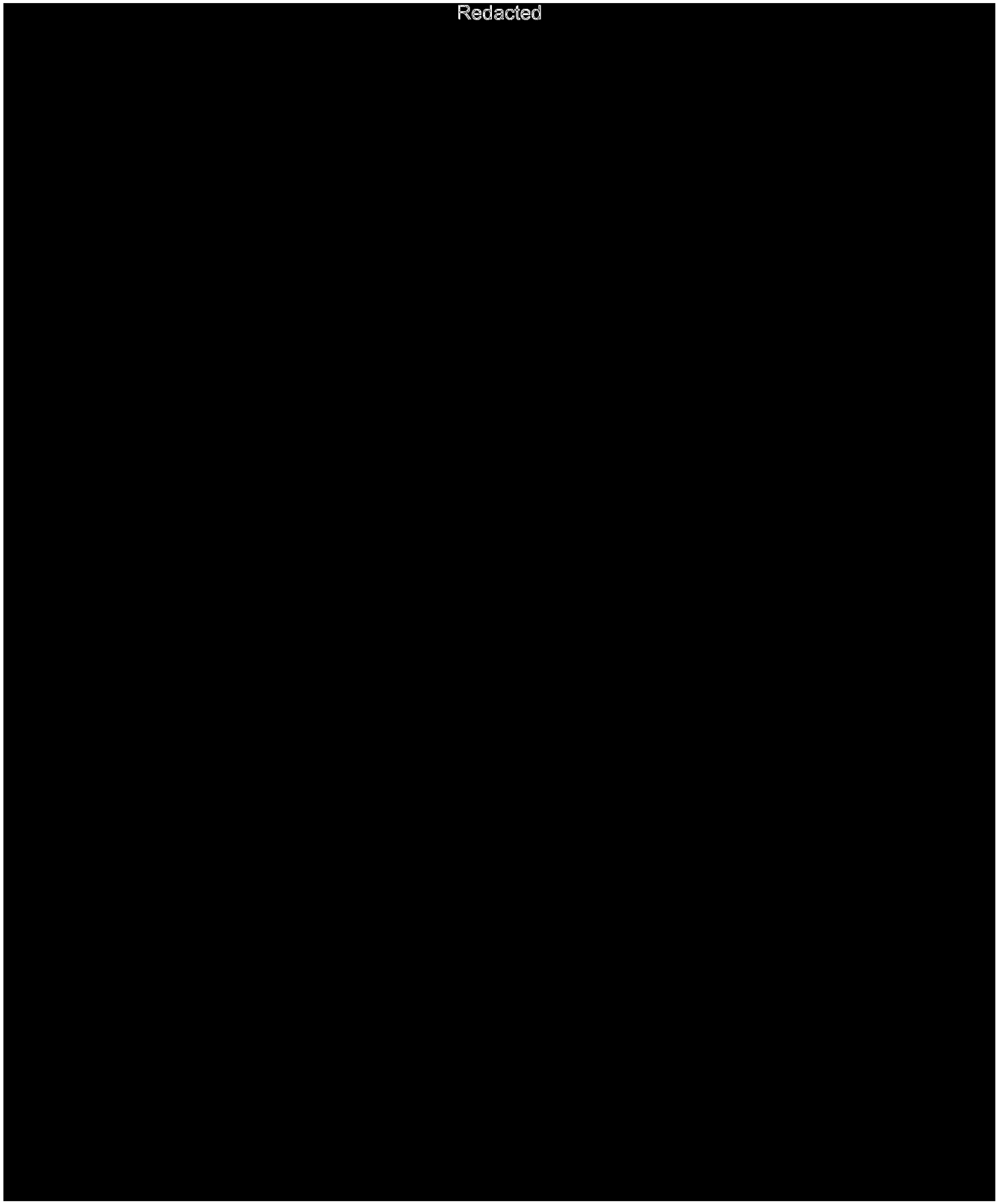
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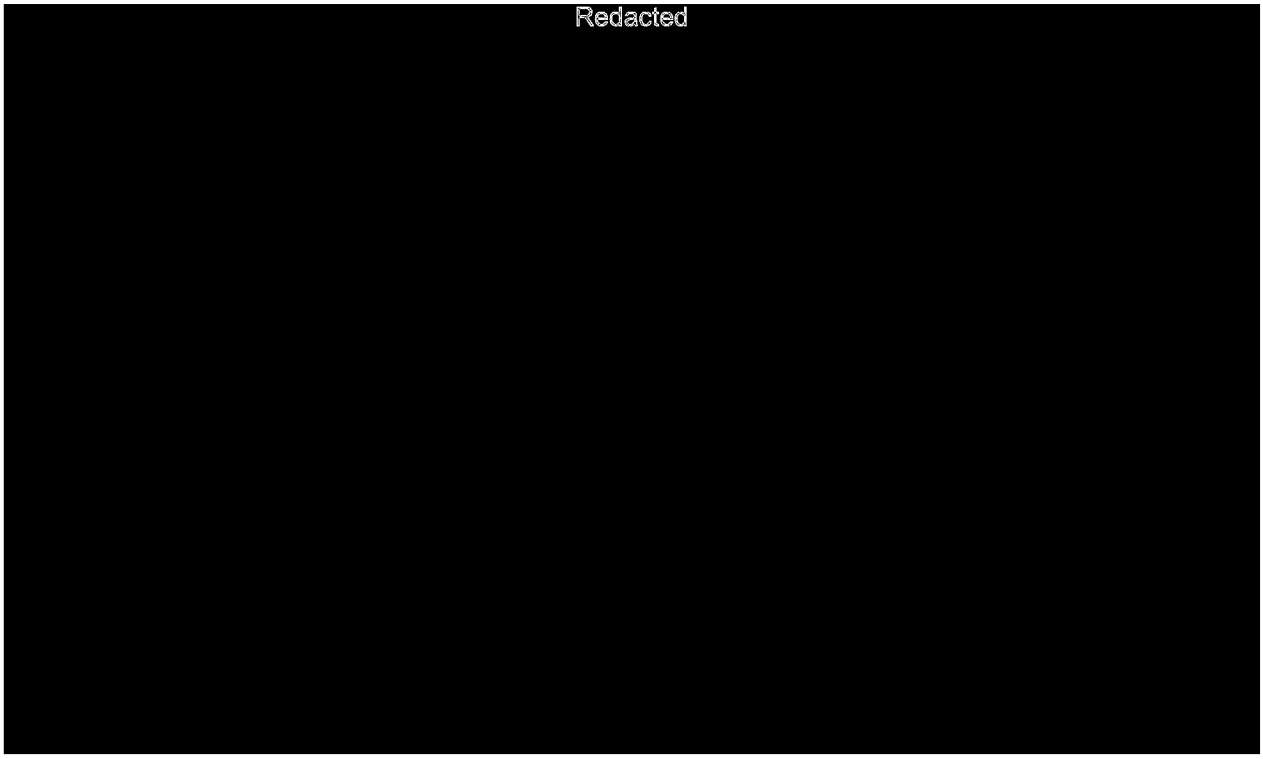
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VIII. Other Applicable Elements

- **Attachment A – Bomb Threat Procedures**

BOMB THREAT PROCEDURES

This quick reference checklist is designed to help employees and decision makers of commercial facilities, schools, etc. respond to a bomb threat in an orderly and controlled manner with the first responders and other stakeholders.

Most bomb threats are received by phone. Bomb threats are serious until proven otherwise. Act quickly, but remain calm and obtain information with the checklist on the reverse of this card.

If a bomb threat is received by phone:

1. Remain calm. Keep the caller on the line for as long as possible. DO NOT HANG UP, even if the caller does.
2. Listen carefully. Be polite and show interest.
3. Try to keep the caller talking to learn more information.
4. If possible, write a note to a colleague to call the authorities or, as soon as the caller hangs up, immediately notify them yourself.
5. If your phone has a display, copy the number and/or letters on the window display.
6. Complete the Bomb Threat Checklist immediately. Write down as much detail as you can remember. Try to get exact words.
7. Immediately upon termination of call, DO NOT HANG UP, but from a different phone, contact authorities immediately with information and await instructions.

If a bomb threat is received by handwritten note:

- Call _____
- Handle note as minimally as possible.

If a bomb threat is received by e-mail:

- Call _____
- Do not delete the message.

Signs of a suspicious package:

- No return address
- Excessive postage
- Stains
- Strange odor
- Strange sounds
- Unexpected delivery
- Poorly handwritten
- Misspelled words
- Incorrect titles
- Foreign postage
- Restrictive notes

* *Refer to your local bomb threat emergency response plan for evacuation criteria*

DO NOT:

- Use two-way radios or cellular phone. Radio signals have the potential to detonate a bomb.
- Touch or move a suspicious package.

WHO TO CONTACT (Select One)

- **911**
- **Follow your local guidelines**

For more information about this form contact the Office for Bombing Prevention at: OBP@cisa.dhs.gov

V2

BOMB THREAT CHECKLIST

DATE: TIME:

TIME CALLER HUNG UP: PHONE NUMBER WHERE CALL RECEIVED:

Ask Caller:

- Where is the bomb located? (building, floor, room, etc.)
- When will it go off?
- What does it look like?
- What kind of bomb is it?
- What will make it explode?
- Did you place the bomb? Yes No
- Why?
- What is your name?

Exact Words of Threat:

Information About Caller:

- Where is the caller located? (background/level of noise)
- Estimated age:
- Is voice familiar? If so, who does it sound like?
- Other points:

Caller's Voice	Background Sounds	Threat Language
☐ Female	☐ Animal noises	☐ Incoherent
☐ Male	☐ House noises	☐ Message read
☐ Accent	☐ Kitchen noises	☐ Taped message
☐ Angry	☐ Street noises	☐ Irrational
☐ Calm	☐ Booth	☐ Profane
☐ Clearing throat	☐ PA system	☐ Well-spoken
☐ Coughing	☐ Conversation	
☐ Cracking Voice	☐ Music	
☐ Crying	☐ Motor	
☐ Deep	☐ Clear	
☐ Deep breathing	☐ Static	
☐ Disguised	☐ Office machinery	
☐ Distinct	☐ Factory machinery	
☐ Excited	☐ Local	
☐ Laughter	☐ Long distance	
☐ Lisp		
☐ Loud	Other Information:	
☐ Nasal		
☐ Normal		
☐ Ragged		
☐ Rapid		
☐ Raspy		
☐ Slow		
☐ Slurred		
☐ Soft		
☐ Stutter		

- **Attachment B – Active Shooter Response**

HOW TO RESPOND
WHEN AN ACTIVE SHOOTER IS IN YOUR VICINITY

QUICKLY DETERMINE THE MOST REASONABLE WAY TO PROTECT YOUR OWN LIFE. CUSTOMERS AND CLIENTS ARE LIKELY TO FOLLOW THE LEAD OF EMPLOYEES AND MANAGERS DURING AN ACTIVE SHOOTER SITUATION.

1. EVACUATE
- Have an escape route and plan in mind
- Leave your belongings behind
- Keep your hands visible

2. HIDE OUT
- Hide in an area out of the active shooter's view
- Block entry to your hiding place and lock the doors

CALL 911 WHEN IT IS SAFE TO DO SO

3. TAKE ACTION
- As a last resort and only when your life is in imminent danger
- Attempt to incapacitate the active shooter
- Act with physical aggression and throw items at the active shooter

HOW TO RESPOND
WHEN LAW ENFORCEMENT ARRIVES ON THE SCENE

1. HOW YOU SHOULD REACT WHEN LAW ENFORCEMENT ARRIVES:
- Remain calm, and follow officers' instructions
- Immediately raise hands and spread fingers
- Keep hands visible at all times
- Avoid making quick movements toward officers such as attempting to hold on to them for safety
- Avoid pointing, screaming and/or yelling
- Do not stop to ask officers for help or direction when evacuating, just proceed in the direction from which officers are entering the premises

2. INFORMATION YOU SHOULD PROVIDE TO LAW ENFORCEMENT OR 911 OPERATOR:
- Location of the active shooter
- Number of shooters, if more than one
- Physical description of shooter/s
- Number and type of weapons held by the shooter/s
- Number of potential victims at the location

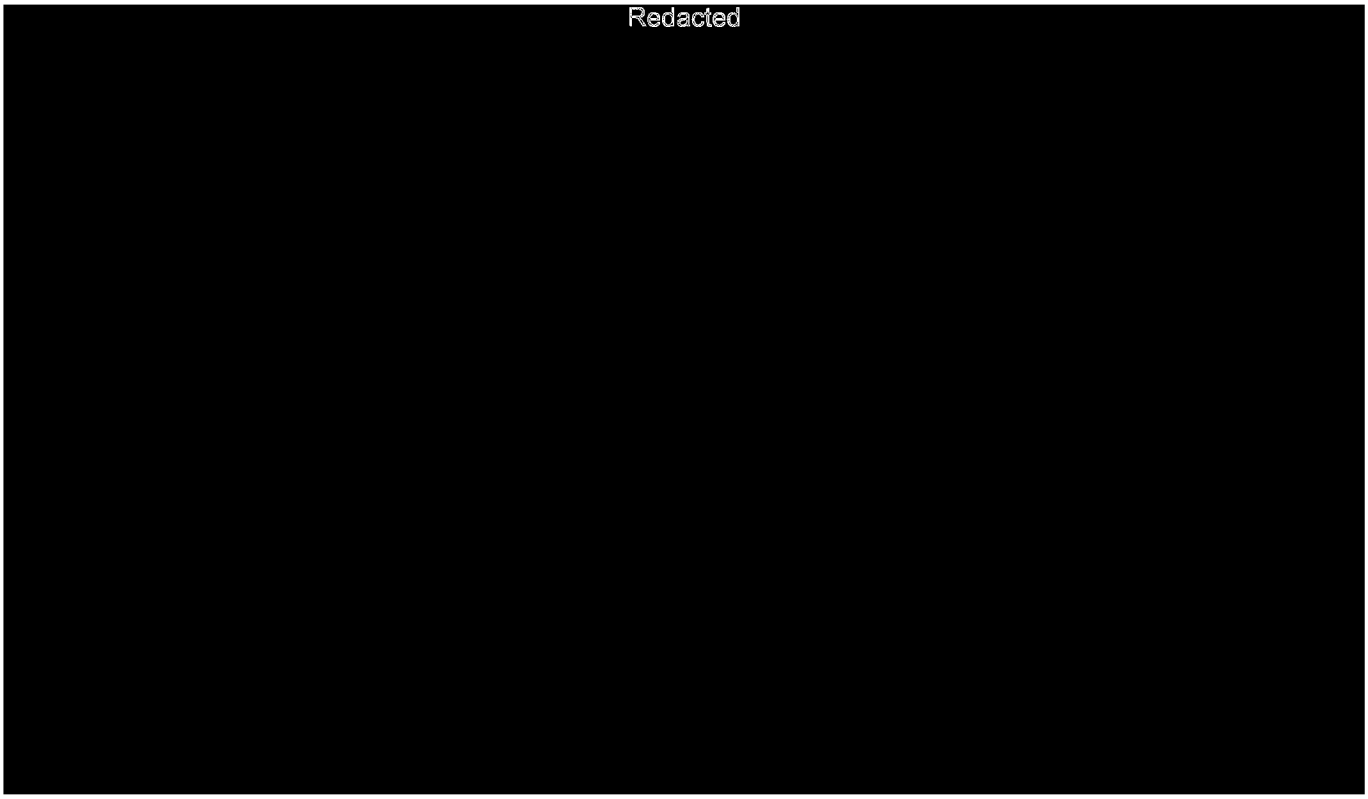
RECOGNIZING SIGNS
OF POTENTIAL WORKPLACE VIOLENCE

AN ACTIVE SHOOTER MAY BE A CURRENT OR FORMER EMPLOYEE. ALERT YOUR HUMAN RESOURCES DEPARTMENT IF YOU BELIEVE AN EMPLOYEE EXHIBITS POTENTIALLY VIOLENT BEHAVIOR. INDICATORS OF POTENTIALLY VIOLENT BEHAVIOR MAY INCLUDE ONE OR MORE OF THE FOLLOWING:

- Increased use of alcohol and/or illegal drugs
- Unexplained increase in absenteeism, and/or vague physical complaints
- Depression/Withdrawal
- Increased severe mood swings, and noticeably unstable or emotional responses
- Increasingly talks of problems at home
- Increase in unsolicited comments about violence, firearms, and other dangerous weapons and violent crimes

Contact your building management or human resources department for more information and training on active shooter response in your workplace.

- **Attachment C – Gate Transmitter Process**



DENTON MUNICIPAL ELECTRIC	2022 DME Physical Security Plan	
	Approval Signatures	
Approved By	**Title**	**Date**
Tony Puente	General Manager	
	DocuSigned by: Antonio Puente, Jr. E3760944C2BF4B5...	3/9/2022
Chris Lutrick	Executive Manager of Operations	
	DocuSigned by: Chris Lutrick AF8FF9AE1F5849F...	3/8/2022
Jerry Looper	System Operations Division Manager	
	DocuSigned by: Jerry Looper 8DA3CF308A2B4D9...	2/24/2022

Table of Contents

1. Introduction

This manual identifies the procedures required to ensure that geomagnetic disturbances (GMD) are reported, logged, and mitigated as necessary.

1.1 Purpose

To ensure that GMDs are reported, logged, and mitigated to comply with applicable requirements as stated in ERCOT Protocols, Operating Guides, or NERC Reliability Standards.

To protect the electrical infrastructure, DME requires that all personnel understand and comply with the following requirements:

- Recognition – DME has procedures for recognition of and for making their operating personnel aware of geomagnetic disturbances on its facilities through the ERCOT messages and space weather information and training. Possible interactions include voltage reduction, overheating transformer cores, transformer harmonics increase, consumption of reactive power, trip capacitor banks, and relay misoperations.
- Response – DME provides its operating personnel with GMD response procedures, including personnel to contact, actions to take to mitigate and monitior based on predetermined conditions. Some actions available to System Operators are long lead time, increase situational awareness, and safe system posturing.
- Communication – DME has procedures for the communication of information concerning GMD to appropriate parties in the region and internally.
- Reporting – DME establishes communications contacts, as applicable with ERCOT and TRE and develops reporting procedures as appropriate to their actions taken to mitigate the situation and process to terminate the GMD plan or process.
- Training – DME System Operators will receive GMD training as necessary to maintain a compentant level of GMD recoginition and mitigation.

1.2 Related Documents

NERC Reliability Standards

- EOP-010-1 – Geomagnetic Disturbance Operations

Applicable ERCOT Protocols & Operating Guides

1.3 Process Diagram

- Pink shapes are data storage
- Green shapes are process initiators
- Each shape in the DME lanes represents a procedure documented below

2. Procedures

2.1 GMD incident is reported (Operations)

Step# Procedural Steps

3. Document Control

Prepared by:

Jerry Looper	9/19/14

Change History:

The change history below reflects changes to the Manual or its structure.

Version	Description of Change	Date
V 01.00	Initial version	11/10/14
	Updated section 2.1 with DWI and DEC	Feb 2018
	Updated "Event Log" with "System Operator Log"	Jan 2020

Review Log:

This document shall be reviewed no greater than every 15 calendar months or as needed.

Reviewed By	Title	Date
Smith Day	Compliance Manager	Nov 2014
Cameron Zahn	Outage Coordinator	Jan 2021
Cameron Zahn	Outage Coordinator	Jan 2022

Table of Contents

1. Introduction

This manual identifies the procedures to be performed when DME experiences a Primary Control Center failure that impacts DME's operations, and the procedures required to ensure the system is ready for such a failure, and ensures DME can continue its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost.

1.1 Requirements

DME shall use this process and the "Emergency Operations Plan" (EOP) for relocation to the backup facility to continue reliable operations in the event the Primary Control Center becomes inoperable; these operations shall not rely on data or voice communication from the primary control facility to be viable.

This process and the "Emergency Operations Plan" (EOP) address the following items for the DME Control Center:

- Monitoring and control of critical transmission facilities
- Voltage control
- Control of critical substation devices
- Logging of significant power system events

The critical facilities identified for this standard may be different than the Critical Assets identified for the CIP standards. No critical facilities are identified for DME.

This process includes procedures and responsibilities for maintaining basic voice communication capabilities with other areas, and includes procedures and responsibilities for conducting periodic tests, at least annually, to ensure viability of the plan.

This process includes procedures and responsibilities for providing annual training to ensure that operating personnel are able to implement the Control Center Backup Process.

DME shall review and update annually its Control Center Backup Process.

DME shall include interim provisions if it is expected to take more than one hour to implement this process for loss of primary control facility.

1.1.1 Purpose

DME is dedicated to maintaining the delivery of electrical energy to its customers in the event of major problems associated with a natural disaster or other catastrophic event that would damage the Primary Control Center. The Primary Control Center houses transmission system operations,

metering functions, Supervisory Control and Data Acquisition (SCADA), and other vital functions and data. It also serves as communications headquarters.

The purpose of this process is to establish procedures that DME Control Center personnel should follow in the event of complete or partial damage to the Primary Control Center and its equipment. Operators may deviate from this process if they are unable to follow the procedures.

This process and associated plans are for guidance and are required steps that must be followed if possible, but under some unexpected situations Operator, Supervisory, and Management experience may be necessary to properly maintain reliable operations of the electric system.

This process has been developed by representatives of the following DME departments: SCADA, Engineering, System Operations, and Technology Services.

This process shall be reviewed and updated annually and shall meet the following minimum requirements:

- Description of actions to be taken by DME personnel to avoid placing a prolonged burden on Bulk Electric System (BES).
- Description of specific functions and responsibilities to be performed to continue operations from an alternate location.
- Includes procedures and responsibilities for maintaining basic voice communications capabilities with ERCOT.
- Includes procedures for backup control function testing and the training of personnel.

Redacted [redacted]

1.2 Related Documents

NERC Reliability Standards

- EOP-008-2 – Loss of Control Center Functionality
- EOP-004-4 – Event Reporting

1.3 Process Diagram

- Pink shapes are data storage
- Green shapes are process initiators
- Each shape in the DME lanes represents a procedure documented below

Redacted

Redacted

Redacted

Redacted

Redacted

3. Forms

3.1 Backup Control Center Checklist (blanks kept in SharePoint – NERC Forms)

Control Center, Backup Control Center Checks and DRILL

date DRILL performed: _____

time DRILL (or checks) initiated: _____ *N/A if not for 2 hr annual test*

time BUCR activated: _____ *N/A if not for 2 hr annual test*

time BUCR de-activated:

NOTES: this DRILL is performed Quarterly as System Operators rotate onto the Training Shift. If no System Operator is scheduled for the DRILL as training, then the checks are made to verifiy BUCR readiness. Once per year, at a minimum, the BUCR must be staffed and checked for functionality for two hours minimum.
These checks and DRILL are based on compliance with NERC Reliability Standards COM-001, COM-002, EOP-005, and EOP-008

item (see Attachment A of process for details)	Main CR - SAT	BUCR - SAT	Needs work (note Main or BUCR)	Comments/Work initiated to correct deficiencies
"Go Bag" ready and obtained				
Operator Entry acquired				
SCADA Login and operation				
OMS/Calls Manager/DisSpatch/ Telesuite/PorcheOCM				
ERCOT Network Phones and ICCP				
Satellite Phone				
Radio System				
Standard Phones				
TOP phones - line to GP&L/TMPA				
Weather Channel on Internet				
UPS				
Door Locks				
HVAC				
City computer applications: Work orders, North Star, Shared drive, SharePoint, Citrix access platform, e-mail				

Operator: _____

Trainer: _____

print name signature

Filing note:	*once completed, store this document in SharePoint>Records>Reports>Drills folder*
File name format:	year, month, day BUCR DRILL
Example file name:	20120301 BUCR DRILL.pdf

revised 3/04/2014

4. Document Control

Prepared by:

KEMA Inc	04/01/2010

Change History:

The change history below reflects changes to the Manual or its structure.

Version	Description of Change	Date
V 01.00	Initial version	4/21/2010
V 01.01	Incorporation of Backup Dispatch Control Plan	6/10/2010
V 02.00	Addition of TOP	10/14/2010
V02.01	Ensured integration with "Emergency Operations Plan" (EOP) for Relocation to Backup Facility	2/10/2012
V03.00	Changed quarterly inspect to Operations responsibility; made process self-contained in combination with use of EOP	3/14/2012
V03.01	Editorial revisions; removed "liaisons" replaced with "Operations management"; added "as soon as practical" requirement to initial notifications; added Approved Phone List reference	7/25/2012
V03.02	Clarify critical facilities statement	12/20/12
V03.03	Corrected Typos	3/14/13
V03.04	Revised to EOP-008-1	6/28/2013
V03.05	Revised to change the Form, remove the previous Checklist, and added new Attachment A which provides details for the form, former Attachment A is now Attachment B, Att. B is now Att. C	3/04/2014
V03.06	Added phone numbers for compliance	2/5/2015
V03.07	Added electronic reader	2/23/2016
	No changes	Feb 2017
V03.08	Removed Galen, correct form location to section 3.1	Feb 2018
	Reviewed. No Changes	1/4/2019
	Reviewed new standard version EOP-008-2 and EOP-004-4 effective 4/1/19 – No changes	March 2019
V03.09	Standardized language; removed unnecessary names of contacts; updated information (JGL)	11/26/2019
V03.10	Updated titles and information	2/22/2022

Review Log:

This document shall be reviewed no greater than every 15 calendar months or as needed.

Reviewed By	Title	Date
Galen Gillum	Compliance Manager	Nov 2011
Galen Gillum	Compliance Manager	2/12/2012
Galen Gillum	Compliance Manager	1/16/2013
Galen Gillum	Compliance Manager	6/28/2013
Galen Gillum	Executive Manager	3/04/2014
Smith Day	Compliance Manager	Feb 2015
Smith Day	Compliance Manager	March 2016
Smith Day	Compliance Manager	March 2017
Smith Day	Compliance Manager	March 2018
Cameron Molsbee	Compliance Officer	January 2021
Jonathan Love	Sys-Ops Supervisor	February 2022

5.

Attachment A – BUCC DRILL/Training Checks Details

6. Attachment B - Backup Control Center Status Checks

The DME Back-up facility is available 24 hours per day, 7 days per week, and 365 days per year. The Backup Control Center is fully capable of maintaining communications with ERCOT and with DME Crews. SCADA and full access to the internet, including the City of Denton HUB, are available.

DME System Operations employees, full, part time and contracted, have access to the DME Backup Control Center through the City of Denton security card access entry program.

In the event of an emergency, actual event, or for testing, DME System Operations employees are directed to the Backup Control Center and will remain at the Backup Control Center until notified to return to the Primary Control Center by an Authorized DME Supervisor.

The DME Backup Control Center facility is inspected every quarter by DME System Operations Department who will test and verify the operations listed in the Backup Control Center Check List. The date of the inspection is documented as well as the time in and time out in DME System Operations folder located at the Backup Control Center.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DENTON MUNICIPAL ELECTRIC

Energizing tomorrow's community today!

2022 Black Start Plan

Effective Date: 1/1/2022

Version 1

Divisions of Electric

Operations, Substations, System Operations, Metering, Construction, Engineering, Communications & Administration

Table of Contents

I. Purpose

The purpose of the Denton Municipal Electric (DME) Black Start Plan is to coordinate a restoration effort with ERCOT and neighboring Transmission Operators in case of a partial or complete collapse of the ERCOT system. The timely implementation of the DME Black Start Plan in conjunction with the ERCOT Black Start Plan will ensure restoration of service to the ERCOT System at the earliest possible time. This plan ensures that facilities and personnel are prepared to enable system restoration from black start resources to assure reliability is maintained during restoration and priority is placed on restoring the Interconnection. During normal operations DME System Operators (DSO) do interact with generation resources directly. The standard operating procedure for system restoration in a black start event is for the DSO to be responsible for communications with the QSE, Black Start Resources as well as ERCOT, to bring generation units on-line and provide electrical paths for restoration of the system.

II. Scope

Once a disturbance is recognized, the procedures of this plan should be followed to the

III. Definitions

Cranking Path- a set of elements in the ERCOT system that establishes an electrical path from a contracted Black Start Resource to a designated next start Resource.

ERCOT Contracted Black Start Unit- The resource is contracted by ERCOT as a Black Start Unit and is used for powering next start units.

Critical Load- Emergency public services such as police, fire, hospitals, etc.

Island- An electrically separated portion of the ERCOT system with independent frequency, generation and load.

Partial Blackout- An uncontrolled separation of a portion of the ERCOT system, where a portion of the ERCOT system has lost frequency, and generation resources within that portion of the system are not serving load.

Blackout- A condition in which frequency for the entire ERCOT System has dropped to zero

DCSES- Decordova Steam Electric Station

TGCCS- Tenaska Gateway Combined Cycle Station

ONCOR –Oncor Electric Delivery

BPEC- Brazos Electric Power Cooperative

RCEC- Rayburn Country Electric Cooperative

TNMP- Texas New Mexico Power Company

Garland- City of Garland Power and Light

DME- Denton Municipal Electric

TMPA- Texas Municipal Power Agency

TOP- Transmission Operator

DSO – DME System Operators

IV. Roles and Responsibilities

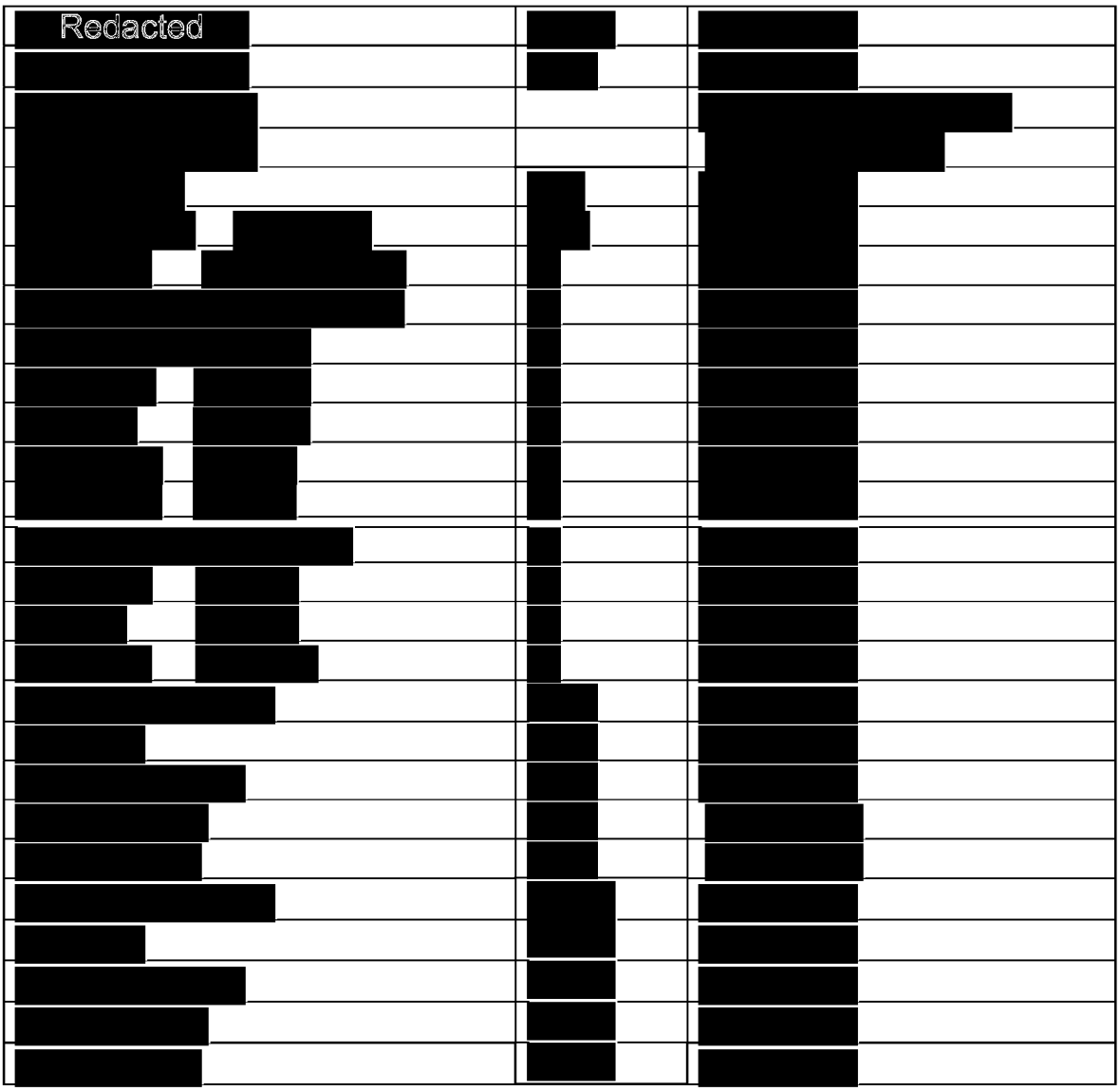
A. System Redacted

B. Generation Resources

C. Generation Control (QSE)

V. Contacts

A. ERCOT



B. Redacted

C. Non-Contracted Generation Resources-

i. None

D. Interconnecting Transmission Operators

i. **Entities involved in Black Start Plan**

ii. Satellite Phone Number List

iv. ERCOT Satellite phones

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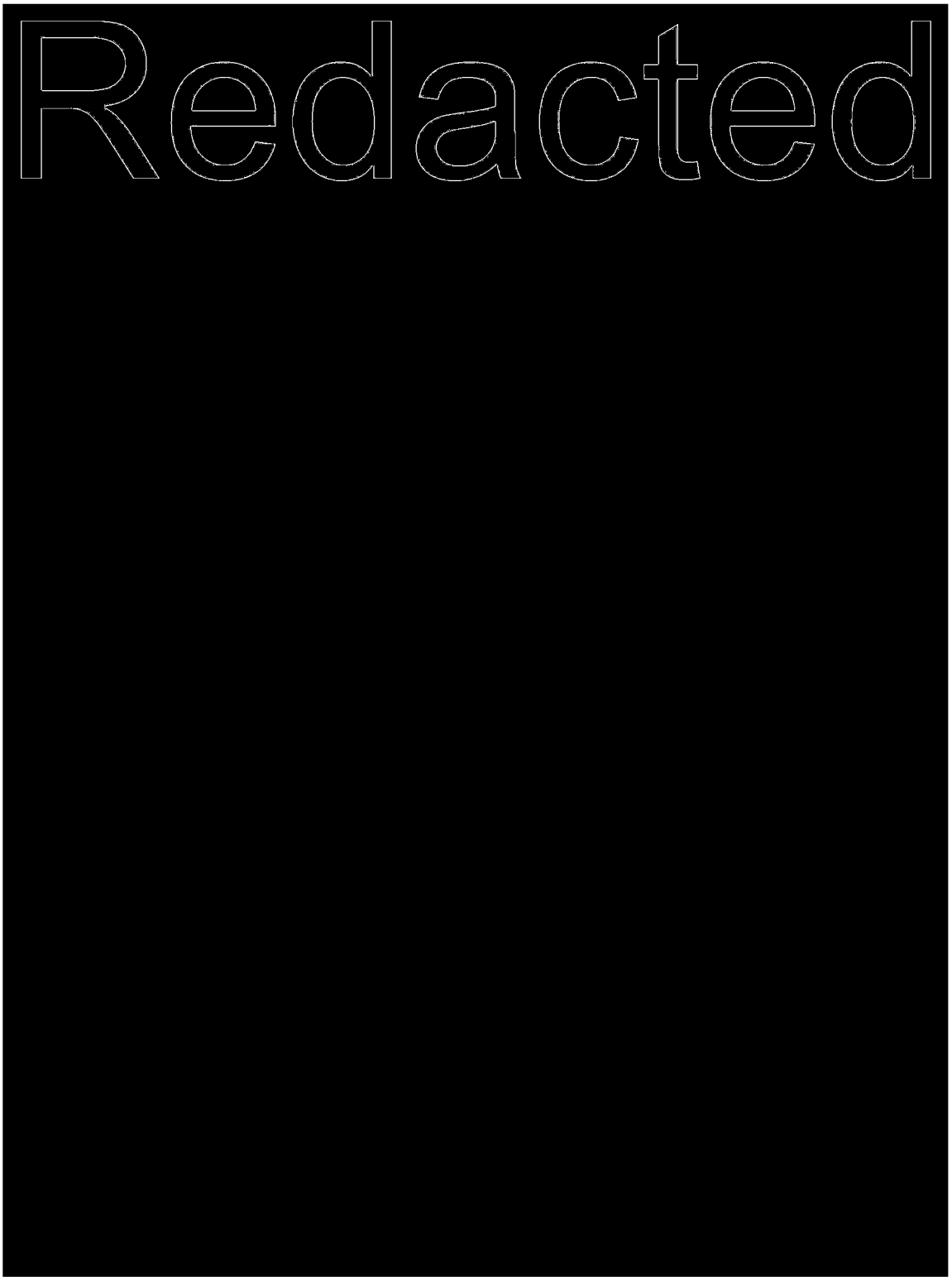
Redacted

VI.

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VII.


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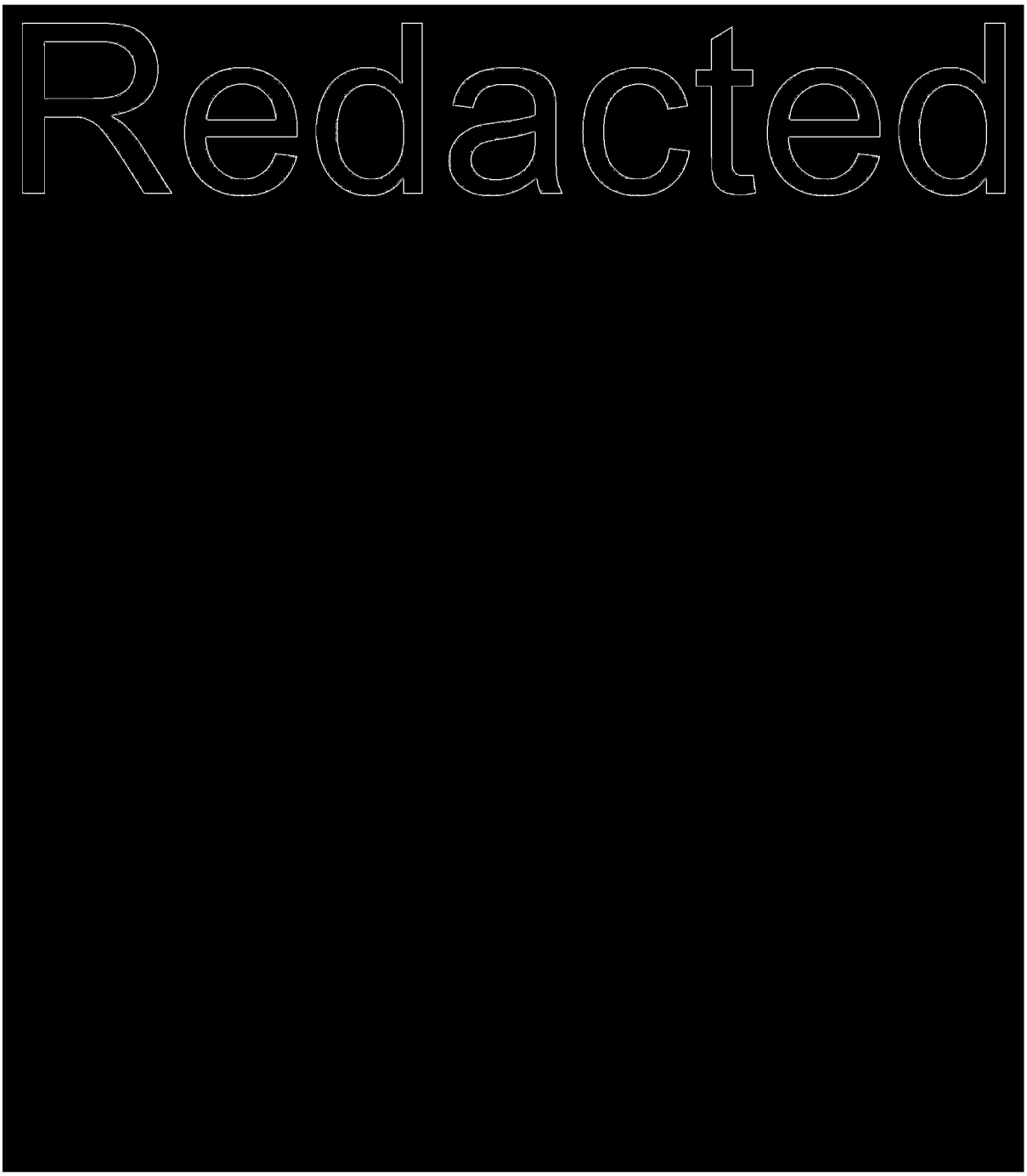
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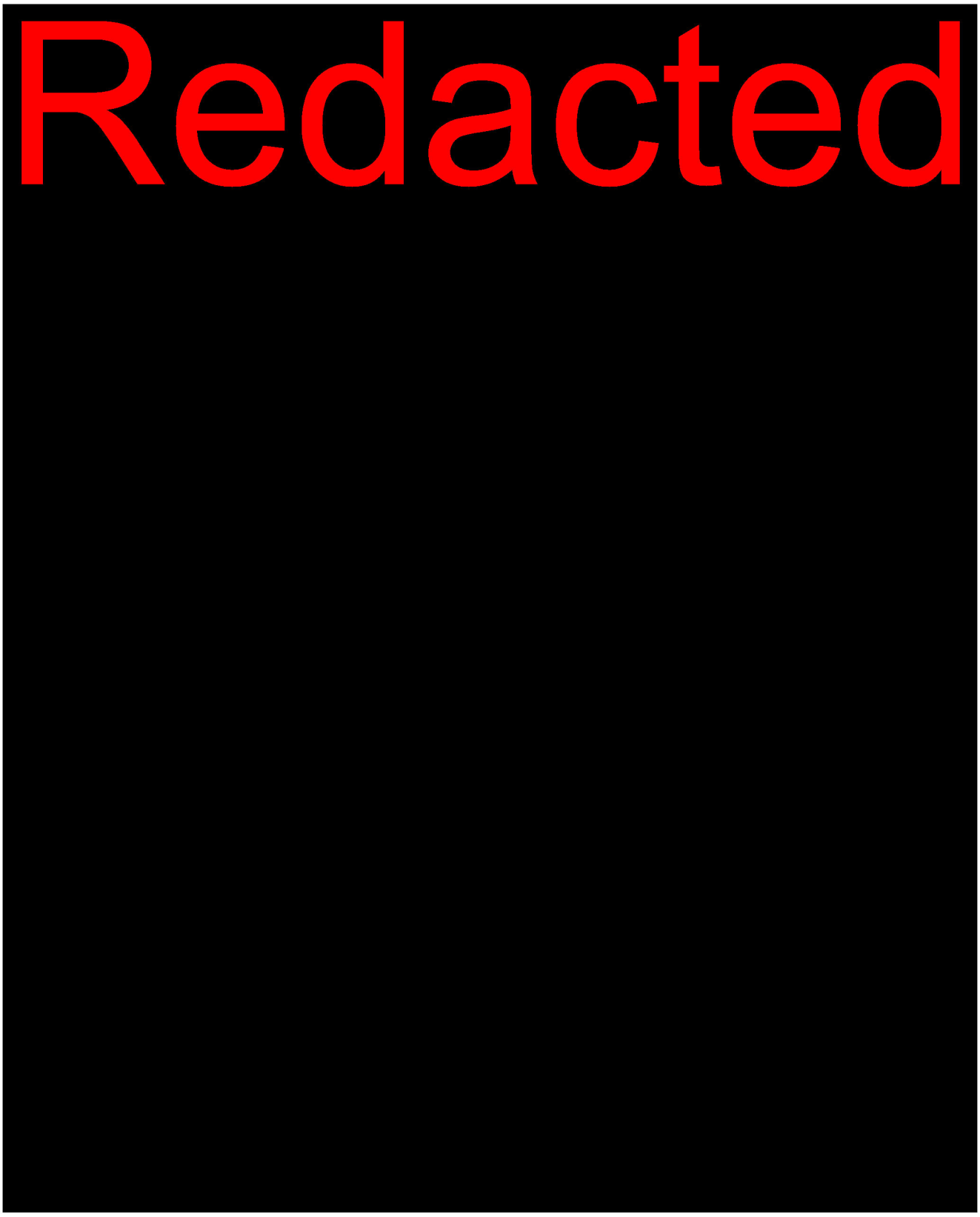
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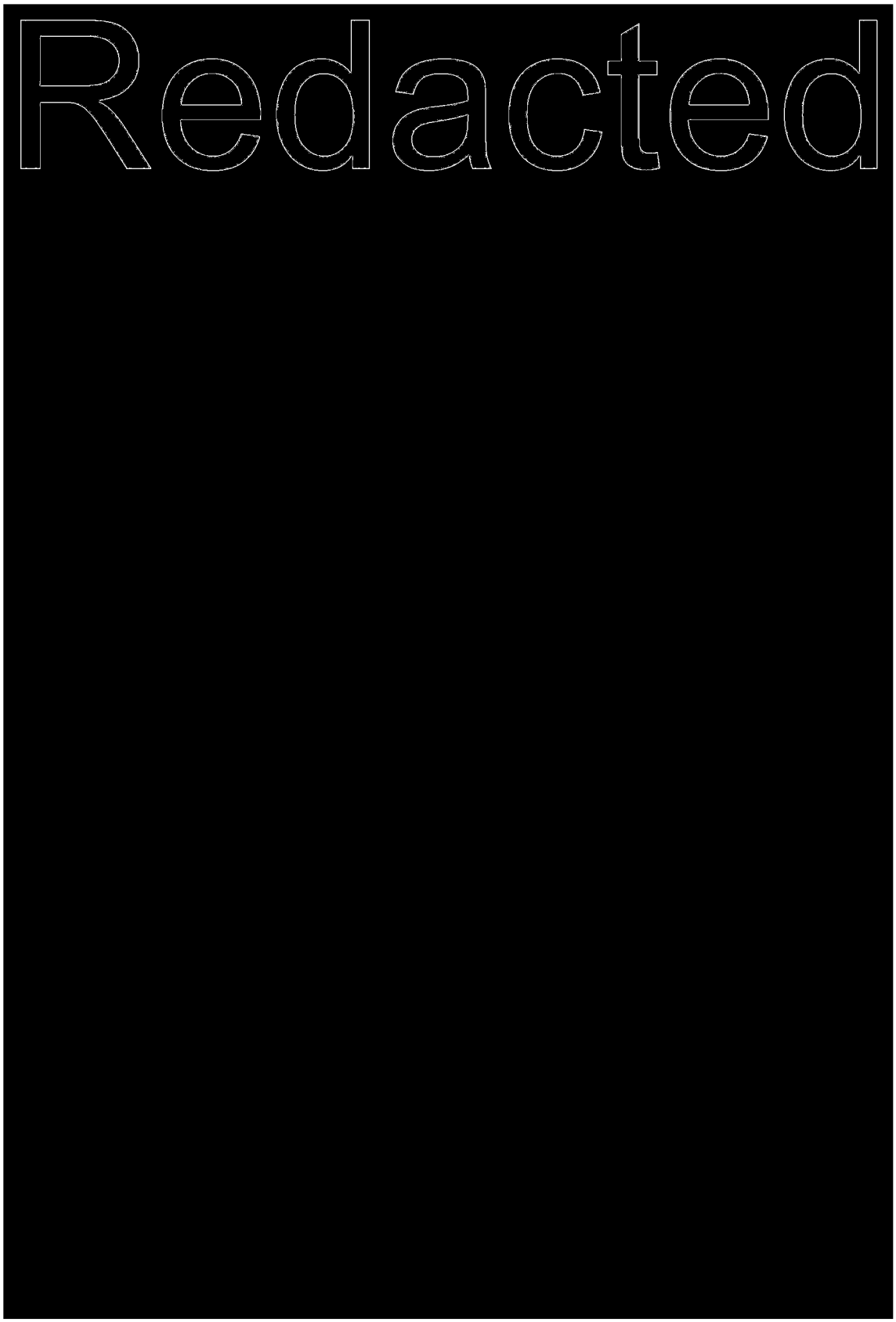
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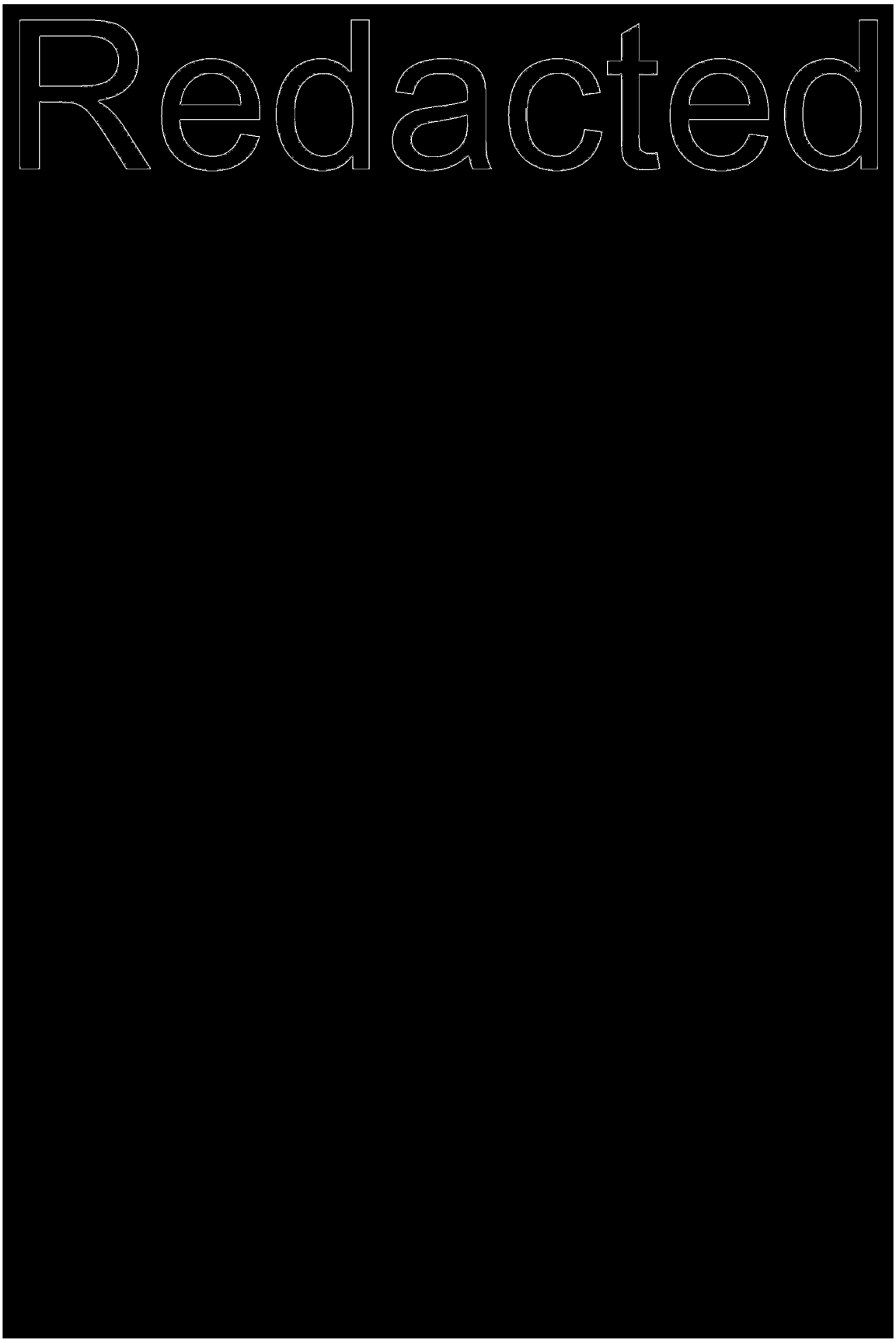
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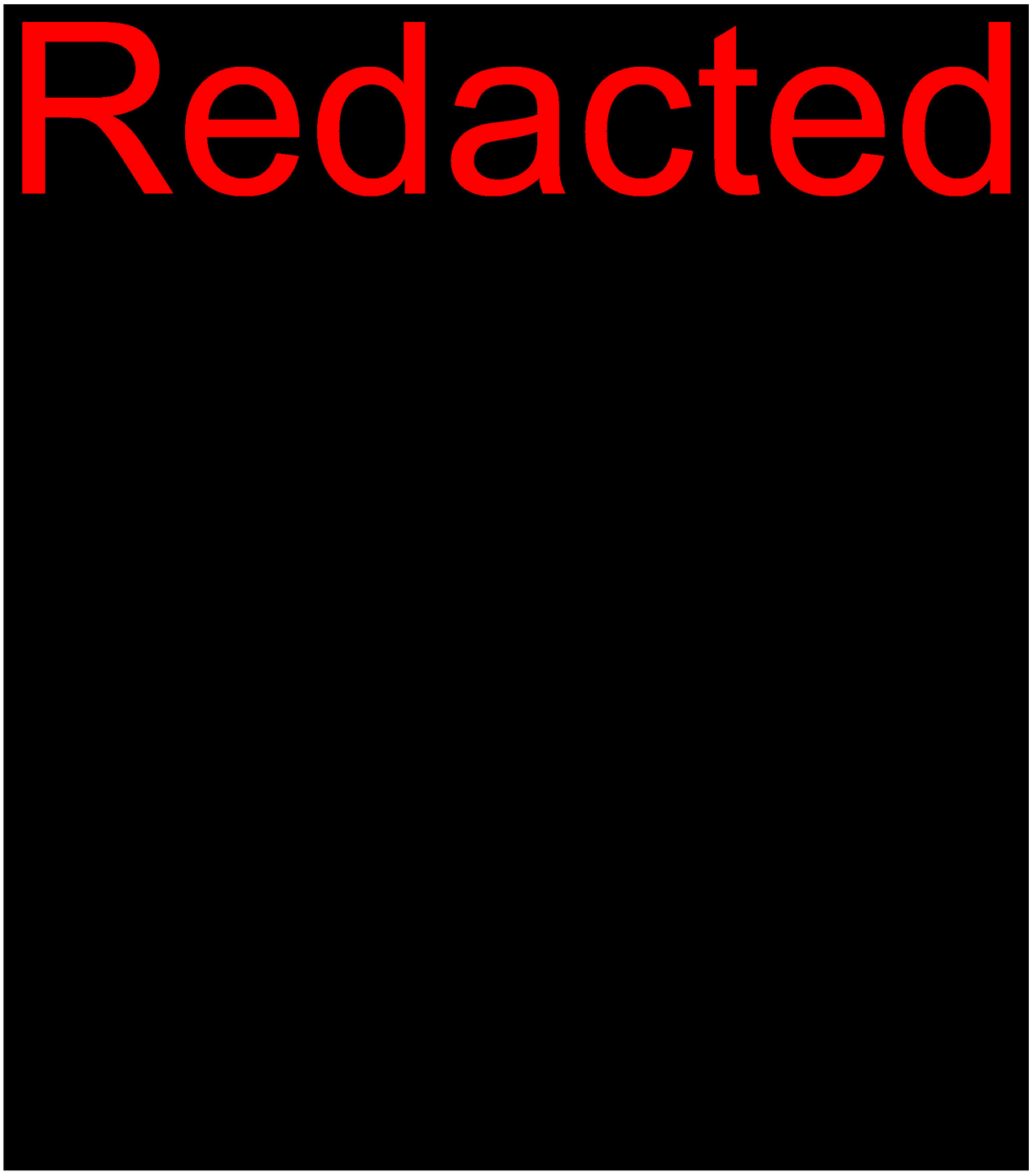
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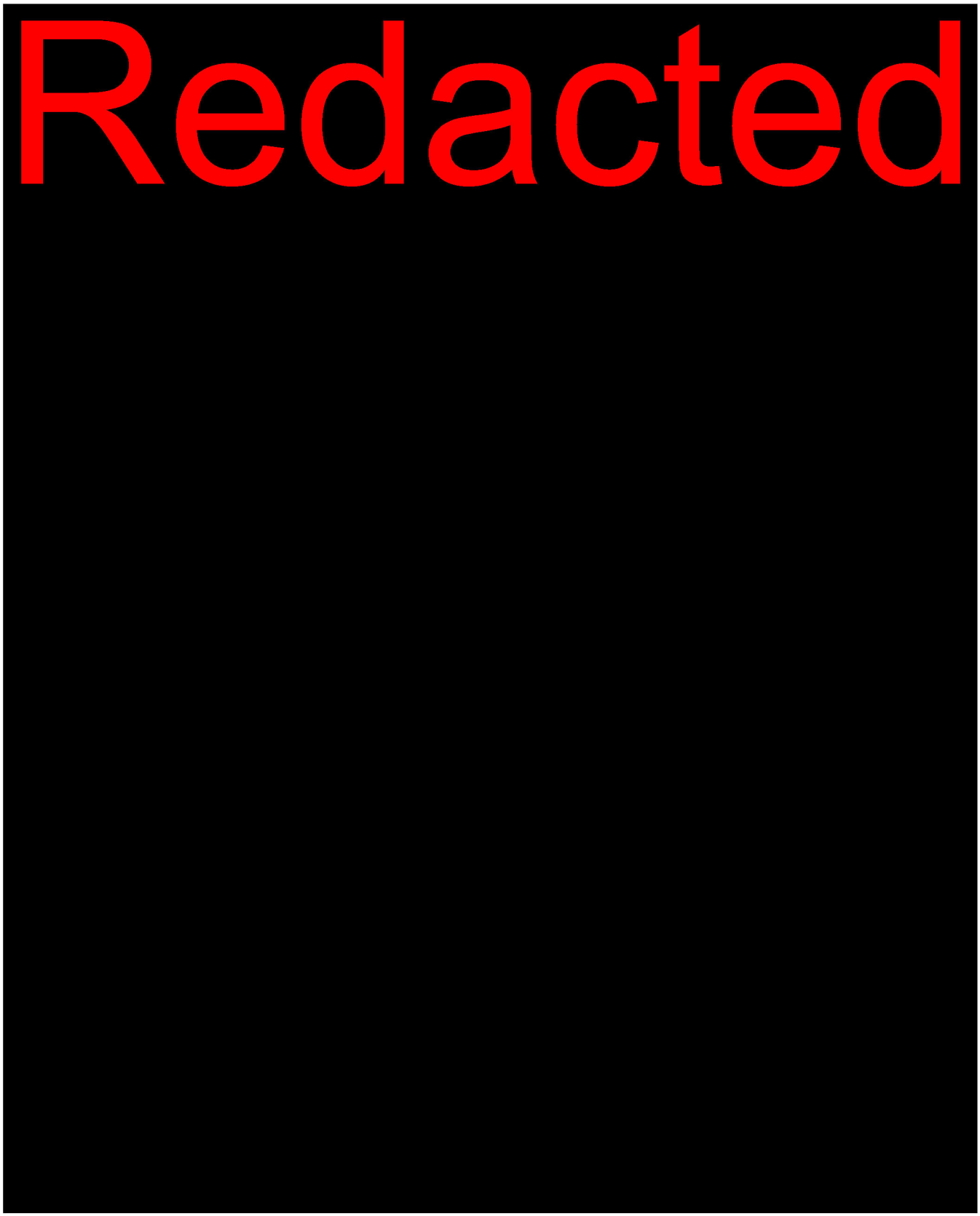
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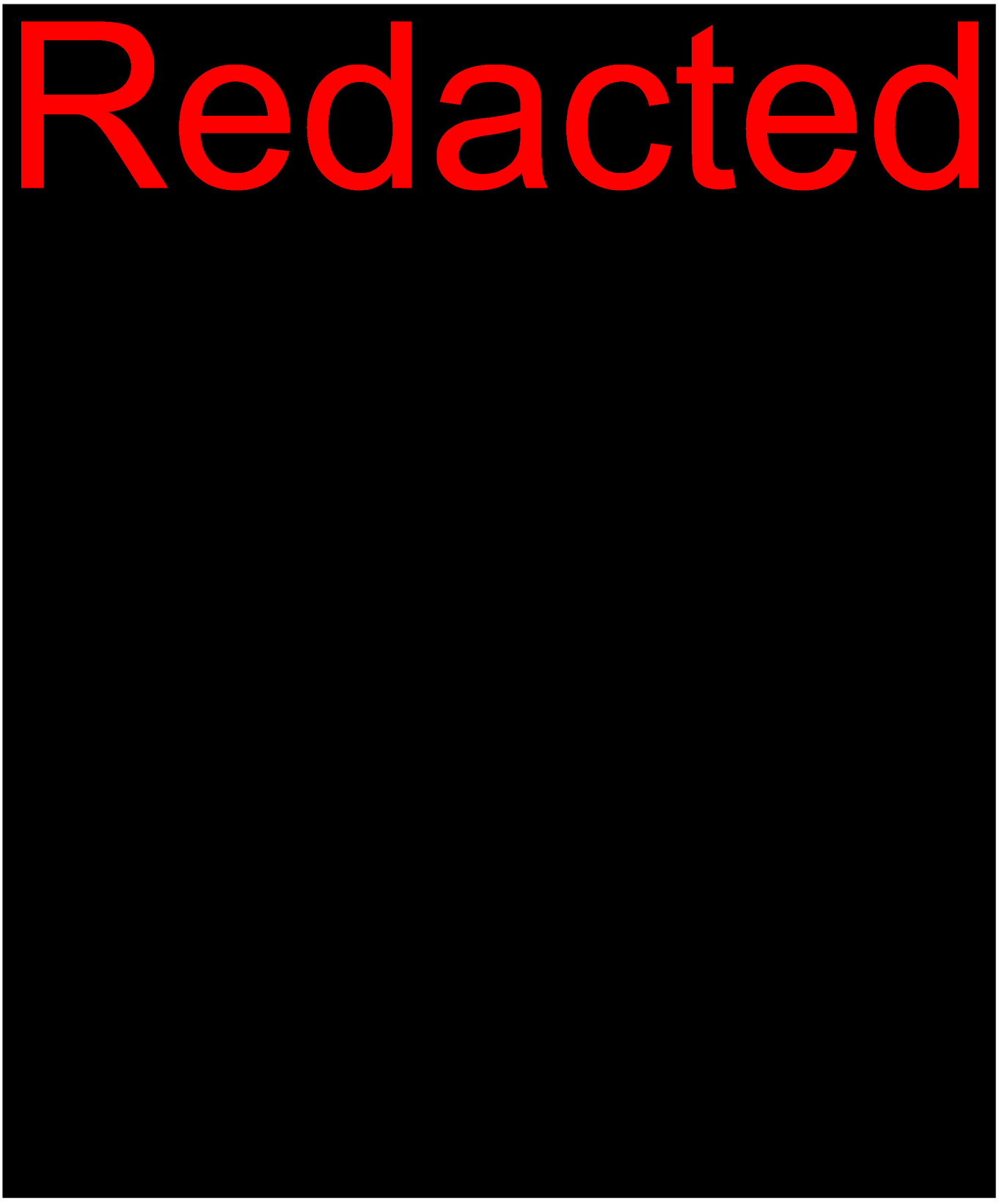
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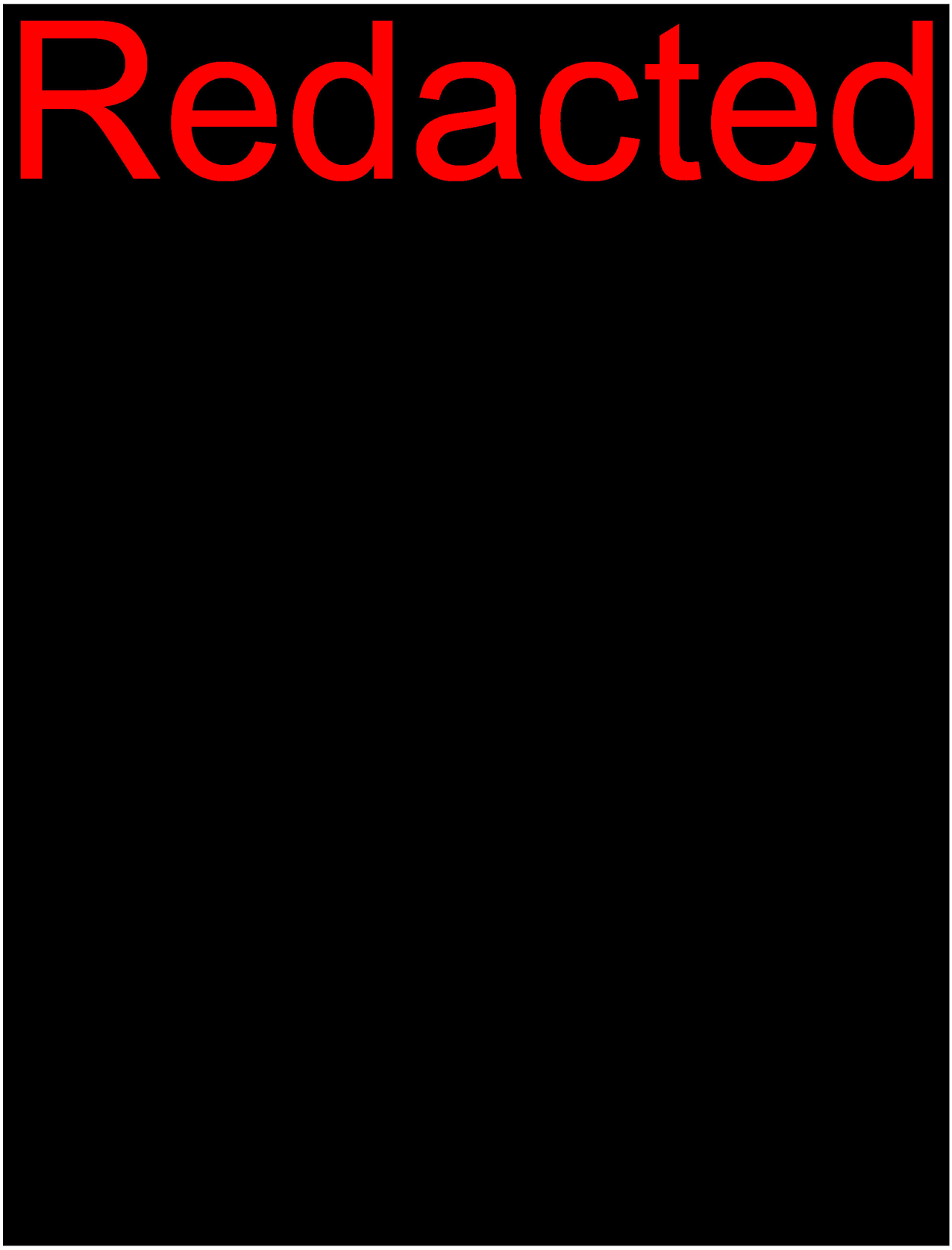
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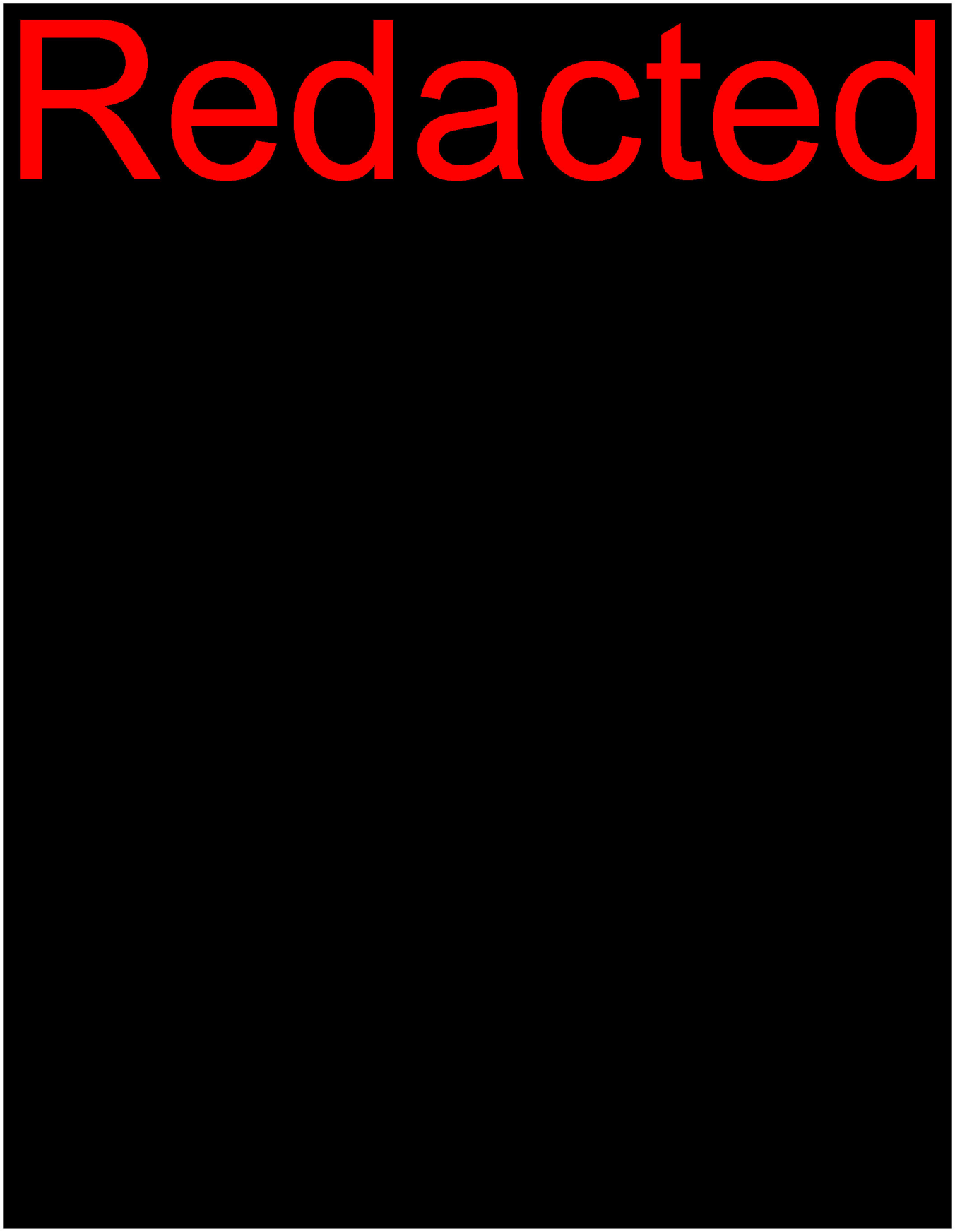
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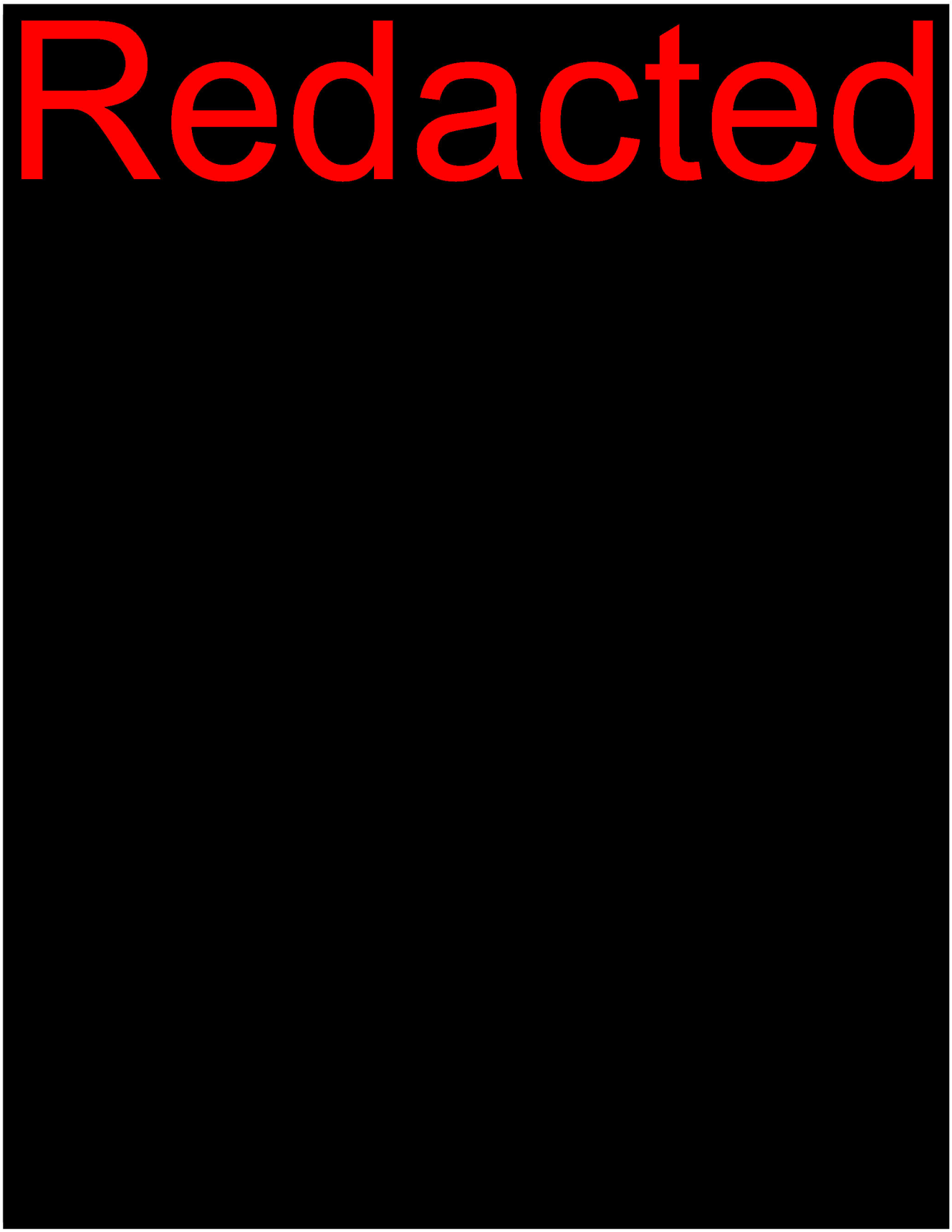
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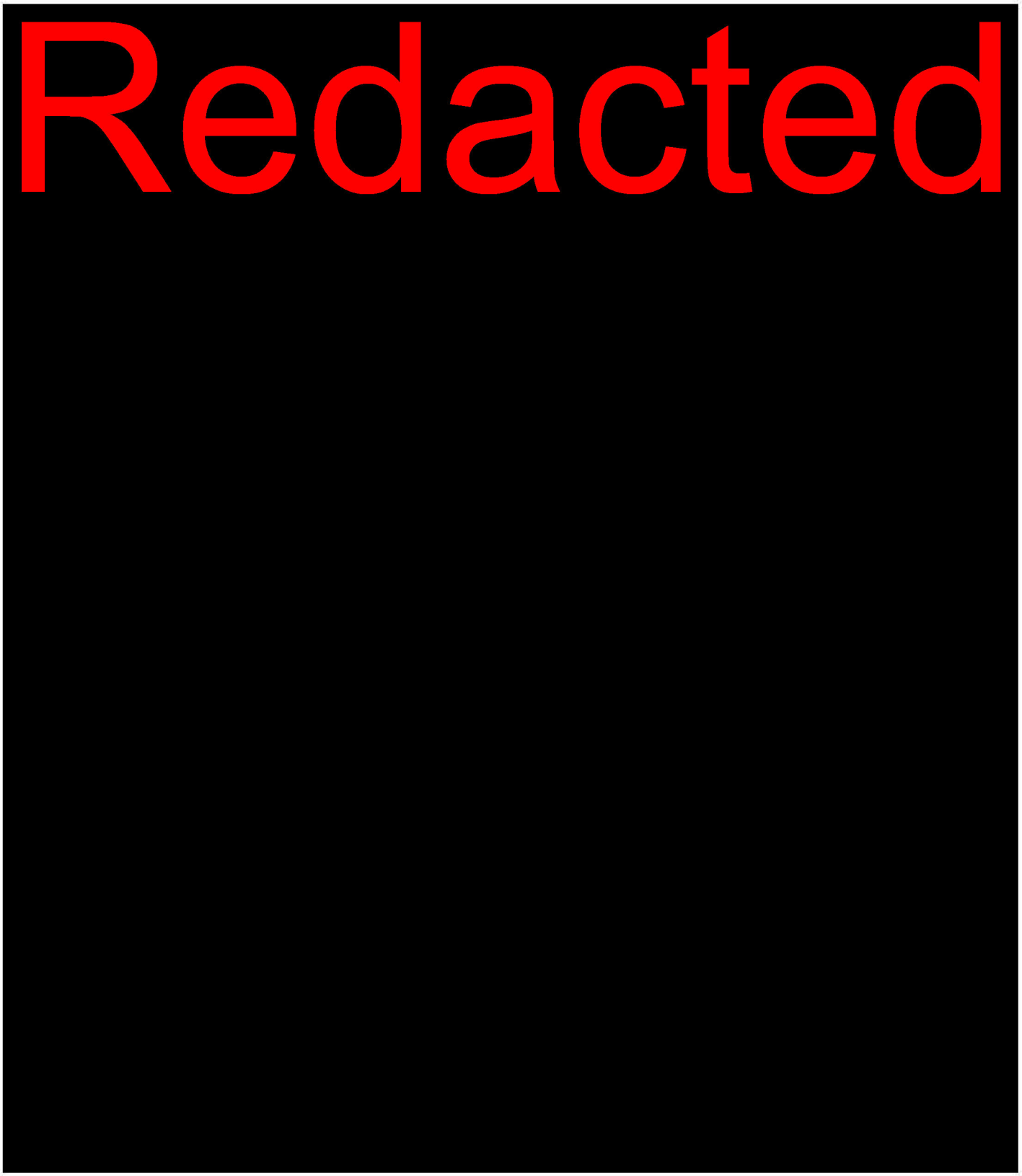
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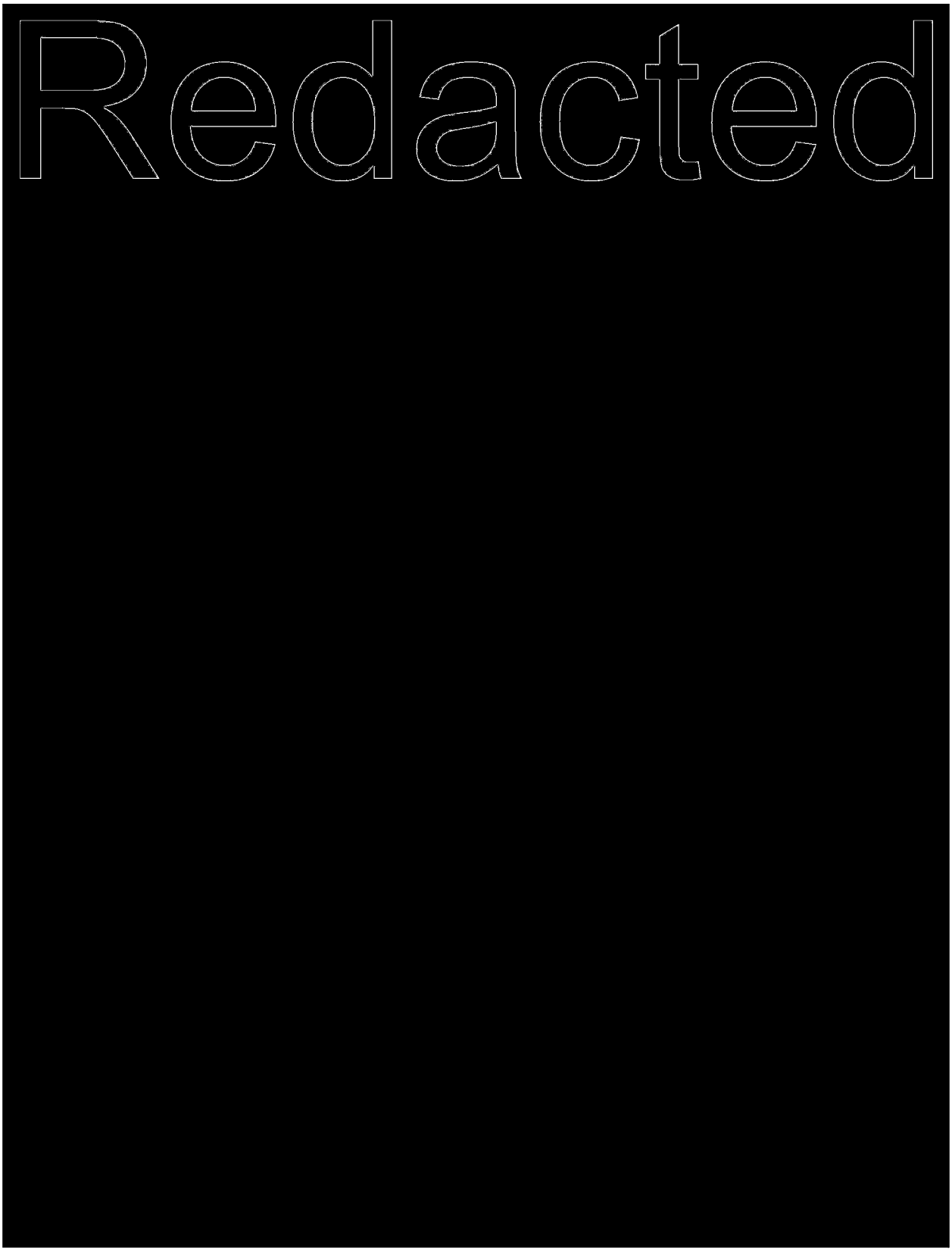
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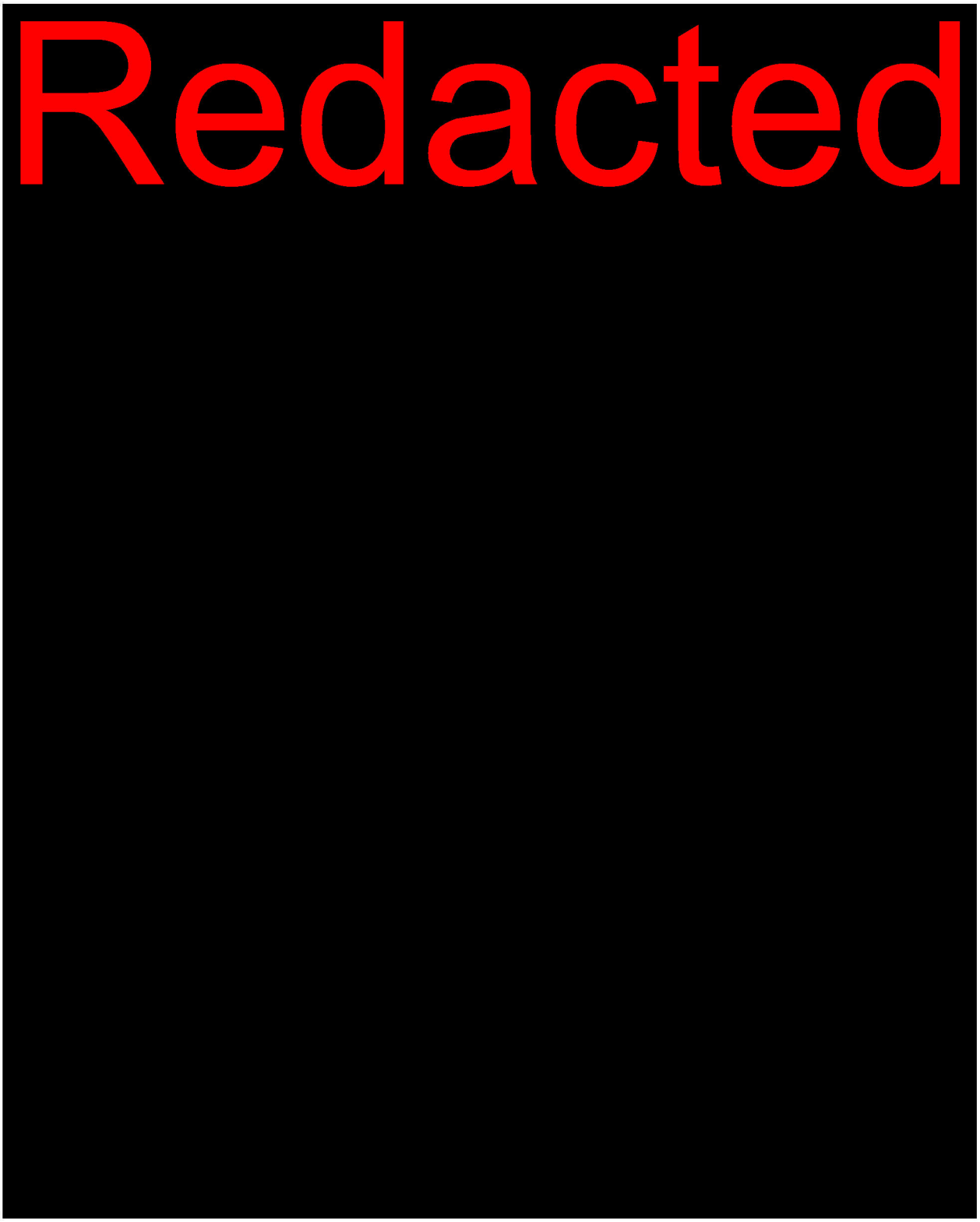
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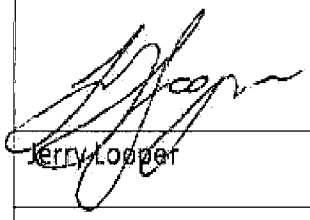
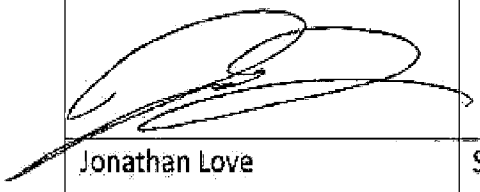
DENTON MUNICIPAL ELECTRIC	DE RELIABILITY PROCESS MANUAL	
	2022 Black Start Plan	Approval Signatures

Approved by:	Title:	Date:
		10/27/21
Chris Lutrick	Executive Manager of Operations	
		10/27/21
Jerry Looper	System Operations Manager	
		10/27/2021
Jonathan Love	System Operations Supervisor	
		10/27/2021
Cameron Zahn	Outage Coordinator	

DENTON MUNICIPAL ELECTRIC	DE RELIABILITY PROCESS MANUAL	
	2022 Black Start Plan	Approval Signatures

Approved by:	Title:	Date:
Chris Lutrick	Executive Manager of Operations	
Jerry Looper	System Operations Manager	
Jonathan Love	System Operations Supervisor	
Cameron Zahn	Outage Coordinator	

Denton Energy Center

Emergency Operating Procedures (EOP) PUCT Ruling 51841

GEN Annex (25.C.2) Table of Contents

DENTON MUNICIPAL ELECTRIC

Energizing tomorrow's community today!

Denton Energy Center
Operating Manual

DME-DEC-OM, Section 12.16

Extreme Cold Preparation & Procedure

City of Denton
Denton Energy Center
Denton, Texas

Developed by:
Denton Energy Center

Rev	Date	Prepared By	Reviewed By	Approved By	Pages Affected
0	5/29/2018	Kevin Griffin	Jason Brown	Jason Brown	All
1	04/20/2019	Kevin Griffin	Jason Brown	Jason Brown	All
2	01/27/2021	Kevin Griffin	Jason Brown	Jason Brown	Page 10
3	10/17/2021	Kevin Griffin	Jason Brown	Jason Brown	Page 3,5-10,12
4	11/04/2021	Kevin Griffin	Jason Brown	Jason Brown	Pages 3,4,11,13,15
5	5/9/2022	Kevin Griffin	Jason Brown	Jason Brown	Page 11&13

Procedure Revision Summary

1.	**Document and Revision Number:** DME-DEC-OM, Section 12.16
2.	**Document Title:** Extreme Cold Weather Preparation & Procedures
3.	**Effective Date:** **05/29/2018**
4. **Rev 0**	**Document Change:** Initial draft of procedure
Rev 1	Recommendation Changes From Texas RE and Ercot.
Rev 2	Clarification Wording on page 10, description for actions at certain temperatures.
Rev 3	Inoperable Unit Addition, Drawing MMCWM013
Rev 4	Recommendation Changes From PUCT.
Rev 5	Addressed Fuel Switching. Page 11,13
5.	**Training Requirements:** Annual required classroom, functionality test & reading for all Personnel.

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12.16 Extreme Cold Weather Preparation & Procedures

12.16.1 Purpose

The purpose of this procedure is to outline the appropriate actions to be taken by the user to help protect the staff and assets at the Denton Energy Center in the event of Extreme Cold Weather.

12.16.2 Definition

Extreme Cold Weather – Climatic conditions (below 32°F) that could reasonably be expected to endanger personnel, result in damage to Denton Energy Center assets or result in the reduced operating capacity of the facility. Additional winter watch personnel will be onsite while temperatures are below 25°. The Winter Watch personnel will be listed on the Control Room white board.

12.16.3 Possible Causes

- Snow Storms /Ice Storms / Hail Storms / Cold Fronts
- Winter Months

12.16.4 Possible Consequences

- Reduction of operating capacity
- Electrical Damage
- Mechanical Damage
- Electrical outage
- Water supply outage & damage
- Fuel gas supply curtailments
- Unit Trips
- Extended Operating Shifts

12.16.5 Attachments

Attachment 1: Pre-Winter/Critical Component List/Inventory Checks
Attachment 2: Emergency Event Report Form
Attachment 3: Drawing MMCWM013

12.16.6 Actions to Perform

12.16.6.1 Preparations prior to winter. (October 1st) DATE:_____

NOTE: Complete once a year. Use initials with every step.

NOTE: The step code specifies where the step is performed. A "C" indicates that the step is performed in the control room; an "L" indicates that the step is performed locally, and an "LP" indicates that the step is performed from a local panel.

Line	Role	Description	Initials
1.	C,L	____ Conduct a planning meeting to estimate and determine the requirements of the winter months approaching. ____ • Review Previous Winter Events & Lessons Learned docs. ____ • Identify Inventory needing Replenishment ____ • Check Equipment for Proper Operation and Readiness (Refer to Attachment 1: Pre-Winter Checks pages 12 -15) ____ ◦ Gas Yard Heaters ____ ◦ Space Heaters ____ ◦ Tank Heaters ____ ◦ Rolling Stock ____ ◦ Engine GenSets and Pre Heaters ____ ◦ Fire Protection System ____ ◦ Emergency Diesel Generator **NOTE:** Pay Special attention to glycol percentage, add additional glycol if needed to ensure that the optimal operating protection of 20 deg is maintained. ____ • Verify emergency phone list is correct. ____ • Verify communication equipment.	
2.	C	____ Inform personnel of special operating limitations, such as coolant freeze point (20°F), & take counter measures at 25°.	
3.	C	____ Have readily available the phone numbers of plant personnel.	
4.	L	____ Inspect roof and outside areas for any damage and proper tie down.	

Date:_____

Redacted

8.	C,L	____ Verify that the Fire Protection System is operational. Check Fire Riser room.	
9.	L	____ Inspect site lagging on piping, secure any loose wires or lagging on equipment.	
10.	C, L	____ Pump out oil/water separator and containments.	
11.	L	____ Verify all containments are clean of debris.	
12.	C, L	____ Verify proper first aid supplies are on hand.	
13.	C, L	____ Verify proper weather gear is on hand. (Refer to Attachment 1: Pre-Winter Checks page 12)	
14.	L	____ Drain water from all nonessential systems and air headers.	
15.	C, L	Read entire procedure & complete pages 6,7,12-15,19.	

12.16.6.2 Prior to EACH cold front or storm arriving. **DATE:_____**
NOTE: Use initials with every step.

Line	Role	Description	Initials
1.	C, L	____ Pull the Visitor log and account for all visitors and vendors. If time permits, visitors should be directed to leave the site. If time does not permit the safe departure of the visitors, arrangements shall be made to shelter the visitors on site.	
2.	L	____ Verify all plant transportation is in good operational condition.	
3.	L	____ Fill all the plant's vehicle fuel tanks.	
4.	L	____ Park plant vehicles indoors where possible.	
5.	C	____ Verify necessary food and water supplies are on hand.	
6.	C	____ Verify all necessary snow removal equipment is on site ____ • Snow shovels ____ • Salt and/or ice melt	
7.	C	____ Verify the On-call mechanic and WINTER WATCH TEAM have been identified, and their phone numbers are readily available and listed on control room board when outside temperature is below 32°.	
8.	L	____ Verify operation of space heaters and heat trace throughout plant. (Use Attachment 1: Pre-Winter Checks Pages 12-15)	
9.	C,L	____ Verify tank heaters and space heaters are operational and set to appropriate temperatures. (Use Attachment 1: Pre-Winter Checks Pages 12-15)	
10.	L	____ Check tractor to make sure it is operational for snow removal.	
11.	L	____ Check salt supply for sidewalks.	
12.	L	____ Spread salt prior to bad weather.	
13.	C	____ Read entire procedure & complete pages 8,12-15,19.	
14.	C,L	Inform Plant Manager or designee the plant has completed preparation for a storm.	

12.16.6.3 During cold front or storm. (Below 32°F) **DATE:_____**
NOTE: Below 25° Complete every 2 hours. Use initials with every step.

WARNING

Ice accumulations on overhead areas pose a threat to bodily injury when it falls. This is especially true once the storm has passed and the temperatures start to increase.

NOTE 1: When working in cold weather it is much easier to overexert yourself. As a minimum, each individual will rest indoors for 10 minutes during every hour of snow removal duties.

NOTE 2: Should any individual, while working in cold weather on snow removal duties, become dizzy, feel chest pains, or numbing of extremities, that individual must STOP any further physical exertion, and contact plant staff for aid.

NOTE 3: When operating vehicles, operate with EXTREME Caution. Ice may be present and can create potentially hazardous driving conditions. Drive slow, brake early, and minimize turns.

Line	Role	Description	Initials
		Redacted	
2.	C	____ Identify the three levels of snow removal priorities, and how the resources on hand will be deployed to clear the snow. Contact Maintenance for additional snow removal assistance if needed.	
3.	C, L	____ Identify where snow can be piled.	
4.	L	____ Move snow to create walkways and vehicle routes for access to engine halls and parking areas. Have personnel take frequent breaks to warm up and rest. **NOTE:** DO NOT pile snow near or around Fire Hydrants, Exits, Emergency Evacuation Routes / Muster Points, or other safety features.	
5.	L	____ Spread salt / "Ice Melt" in parking areas, exterior walkways, building entrances, and vehicle routes to prevent slipping hazards to personnel and vehicles	

Date:_____

6.	**C**	____ Once storm occurs, monitor the plant's condition and adjust operations as necessary to maintain the plant's parameters within its operational limits.	
7.	**C**	____ Using the **Recorded** phone in the control room, notify RTD control desk of changes in electrical production due to plant conditions.	
8.	**L**	____ Remind personnel to don proper winter PPE when outside performing rounds & maintenance.	
9.	**L**	____ Log Propane Level.	
10.	**C,L**	Read entire procedure and complete the proper documentation.	
11.	**C,L**	At 32° Complete pages 9,10,12(BOTTOM HEAT TRACE SECTION) & 19.	
12.	**C,L**	At 25° Complete pages 9,10,12(BOTTOM HEAT TRACE SECTION) & 19, and Equipment rounds EVERY 2 HOURS. Activate the Winter Watch Team	
13.	**C,L**	At 20° Complete pages 9,10,12(BOTTOM HEAT TRACE SECTION) & 19, and Equipment rounds EVERY HOUR.	

Redacted

17.		Complete DME-DEC-OM-12.07 Severe Weather & Natural Disasters	
18.	**C,L**	____ After event and when conditions permit, perform steps in *Return to Facility / Recovery from Severe Weather*	

12.16.6.4 Yearly Preparation Check List.

Instructions

A generation entity must complete the following winter weather emergency preparation measures for each resource under its control and must submit to the PUCT and ERCOT, on a form prescribed by ERCOT a winter weather readiness report. ERCOT must file with the commission comprehensive checklist forms based on the requirements that include checking systems and subsystems containing cold weather critical components. ERCOT must use a generation entity' s winter weather readiness report submitted to adapt the checklists to the inspections of the generation entity' s resources.

ERCOT must file with the commission a compliance report that addresses whether each generation entity has submitted the winter weather readiness report for each resource under the generation entity' s control and whether the generation entity submitted an assertion of good cause for noncompliance.

A generation entity that timely submits to ERCOT the winter weather readiness report required is exempt, for the 2021 calendar year, from the requirement in Section 3.21(3) of the ERCOT Protocols that requires a generation entity to submit the Declaration of Completion of Generation Resource Winter Weatherization Preparations no earlier than November 1 and no later than December 1 of each year.

Yearly Preparation Check List.

Line	Action Description	Date	Initials
1	Weatherization Plan		
2	Onsite Fuel Security		
3	Staffing Plans		
4	Operational Readiness		
5	Structural Preparations		
6	Secure Sufficient Chemicals		
7	Auxiliary Fuels		
8	Secondary Engine Fuel Supply Switching **N/A**		
9	Other Materials		
10	Personnel required to operate the resource		
11	Install adequate wind breaks		
12	Enclose sensors for cold weather critical components		
13	Inspect thermal insulation and repair		
14	Confirm the operability of instrument air moisture prevention systems		
15	Conduct maintenance of freeze protection components		
16	Schedule for testing freeze protection components on a monthly basis from November through March		
17	Monitoring systems for cold weather critical components.		

DATE:_____

Attachment #1: Pre-Winter/Critical Component List/Inventory Checks

(Use initials not checkmarks)

SPACE HEATERS (Adjust thermostat to 90°F for heater to come on, then back to ORIGINAL set point when complete.)						
LOCATION	SET POINT	OK		LOCATION	SET POINT	OK

Redacted

Date_____

Heat Trace Control Panel 00EAP-PNL-0009	OK
Check Main Power on.	
Check for common alarms and reset if needed.	
Main Control HOA in Auto.	
If energized the "Contactor Energized" light will be Red.	
Check Power available Light ON.	
Press Lamp Test to verify each light bulb is working.	
If a circuit is energized the corresponding light will be energized (RED).	
Comments:	

Winter Inventory Supply List	OK	COUNT
Coolant (gallons)		275
Tarp 6X8		2
Tarp 8X10		2
Heat Trace 12ft.		2
Heat Trace 30ft.		2
Portable Space Heater		1
Ice Melt (bags)		10
Emergency Generator Diesel Level (gallons)		1000
Diesel fuel (for space heaters) (gallons)		50
Propane (%)		75
Kerosene (gallons)		110
Portable Space heaters (dual fuel)		4
Comments:		

Critical Component List	OK

Redacted

SPACE HEATERS			Date:
Location	**ID#**	**Status**	**NOTES / WO / INITIALS**
Check that Thermostat is 60°F, Fan in Auto, Control on Heat Position.		Ready or Inoperative	If any heater appears inoperative notify supervisor and document WO # here

Redacted

Date:_____

New Oil Tank heater	OK	Service Oil Tank Heater	OK
Check Main Power on.		Check Main Power on.	
Check Set Point at 70°F.		Check Set Point at 70°F.	
Check Oil Temperature		Check Oil Temperature.	
Unit Operational.		Unit Operational.	
Comments:			

Complete this section the following Months: October, November, December, January, February, March.

Heat Trace Test Form	Date:

[redacted]

Totals						

Catalytic heaters at EGY (South) 2" Supply VRG Controller	East	West
Check main power off.		
Check for gas supply open.		
Check Thermostat set between 2-3.		
Check exterior of catalytic heater with a temperature gun.		
Comments:		

Catalytic heaters at EGY (South) 6" Supply VRG Controller	East	West
Check main power off.		
Check for gas supply open.		
Check Thermostat set between 2-3.		
Check exterior of catalytic heater with a temperature gun.		
Comments:		
Emergency Diesel Fuel Tank Heater		

Attachment #2: Emergency Event Report Form

Date:_____

Event Report Form

Event and Actions:

Attachment #3: Drawing MMCWM013

ERCOT Weatherization Form:

ercot

Declaration of Completion of Generation Resource Weatherization Preparations

Time Period:

☒ Winter: December 20__ through February 20__

☐ Summer: June through September 2018

Resource Entity (or Entities): Denton Municipal Electric DEC

This declaration applies to the following Generation Resources (list by Resource Site Code):

DEC_AGR_A
DEC_AGR_B
DEC_AGR_C
DEC_AGR_D

I hereby attest that all weatherization preparations for equipment critical to the reliable operation of each of the above-listed Generation Resources during the time period stated above are complete or will be completed, as required by the weatherization plan applicable to each Generation Resource. Any outstanding weatherization preparations are summarized in the attached document and include the name of the Generation Resource, a brief description of the remaining weatherization task(s) if any, and an associated target completion date for each task.

By signing below, I certify that I am an officer or authorized executive of each Resource Entity listed above, that I am authorized to execute and submit this declaration on behalf of each Resource Entity listed above, and that, to the best of my knowledge, the statements contained herein are true and correct.

Signature

Name: Jason W. Brown
Title: Plant Manager, Denton Energy Center
Date:

ERCOT Protocols (22K) – Declaration of Completion of Generation Resource Weatherization Preparations
January 1, 2013

1
ERCOT Public

Completed Procedure Authorization:

Date & Time: _____

Performed By: _____

Operations Supervisor: _____

Plant Manager: _____

DENTON MUNICIPAL ELECTRIC

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Denton Energy Center Operating Manual

DME-DEC-OM, Section 12.17

Extreme Heat Procedures

City of Denton
Denton Energy Center

Denton, Texas

Developed by:
Denton Energy Center

Rev	Date	Prepared By	Reviewed By	Approved By	Pages Affected
0	5/29/2018	Ryan Borg	Kevin Griffin	Jason Brown	All
1	05/02/2022	John Goble	Kevin Griffin	Jason Brown	Page 8
2	05/10/2022	Stephen Boyle	Kevin Griffin	Jason Brown	Page 3,6

Procedure Revision Summary

1.	**Document and Revision Number:** DME-DEC-OM, Section 12.17
2.	**Document Title:** Extreme Heat Procedures
3.	**Effective Date:** **05/29/2018**
4. **Rev 0**	**Document Change:** Initial draft of procedure
Rev 1	Updated Fire System Monitoring statement.
Rev 2	Addressed Fuel Switching & Pre & Post meetings. Updated Training Requirements.
5.	**Training Requirements:** Annual Required classroom training for all personnel.

Table of Contents

12.17 Extreme Heat Procedures

12.17.1 Purpose

The purpose of this procedure is to allow the user to mitigate safety dangers, property damage, and equipment operation de-rating associated with summer operation and potential Extreme Heat conditions.

12.17.2 Definition

Extreme Heat – Climatic conditions that could reasonably be expected to endanger personnel, result in damage to the Denton Energy Center's assets, or result in the reduced operating capacity of the facility.

12.17.3 Possible Causes

Summer months (June – September) with high temperatures and humidity.

12.17.4 Possible Consequences

- Medical Emergency
- Loss of Generation

12.17.5 Attachments

- Emergency Event Report Form
- Ercot Declaration of Completion of Generation Resource Weatherization Preparations

Actions to Perform

12.17.5.1 Prior to Summer Months (May of current year)

NOTE: The step code specifies where the step is performed.
A "C" indicates that the step is performed in the control room;
an "L" indicates that the step is performed locally, and
an "LP" indicates that the step is performed from a local panel.

NOTE: This section can be used in addition to 12.6 Severe Weather and Storm Preparations.

1. **C,L** _____ Conduct a planning meeting to estimate and determine the requirements of the summer months approaching.

   _____ • Review lessons learned.
   _____ • Identify Inventory needing Replenishment
   _____ • Verify emergency phone list is correct.
   _____ • Verify communication equipment is working properly.
   _____ •Verify Engine gas supply.
   Please NOTE: (Fuel switching for secondary fuel supply is not available.)

2. **C** _____ Inform personnel of special operating limitations and countermeasures.

3. **C** _____ Have readily available the phone numbers of plant personnel.

4. **L** _____ Check that Air Conditioning Contractors have serviced all air conditioning units.

5. L ____ Check operation of all HVAC / Ventilation elements in:

____ ◦ 13.8 kV Switchyard Buildings (North MV / South MV)
____ ◦ 480 VAC Buildings (North LV / South LV)
____ ◦ North Battery Room
____ ◦ South Battery Room
____ ◦ Server Room
____ ◦ VFD Enclosures
____ ◦ Admin / Control Room Building
____ ◦ Compressor Room
____ ◦ Engine Halls
____ ◦ BJA Panels
____ ◦ Analyzers Panels
____ ◦ Dosing Panel

NOTE: Notify Supervisor of any deficiencies and create work orders for any equipment needing repairs.

6. L ____ Check filters for excessive contamination. Replace any filters that are damaged or restrict air flow beyond acceptable limits.

7. C, L ____ Verify diesel generators are ready for service. Check for proper coolant level and radiator condition.

8. L ____ Verify that the Fire Protection System is operational. Check Fire Service Water loop is properly aligned for service.

9. L ____ Inspect site lagging on piping, secure any loose wires or lagging on equipment.

10. C, L ____ Verify proper first aid supplies are on hand.

12.17.5.2 Prior to forecasted high temperature events

1. L ____ Verify all plant vehicles are in good operational condition.

2. L ____ Check coolant levels of all vehicles, address any low coolant levels

3. C ____ Verify necessary drinking water supplies are on hand.

4. C ____ Verify all necessary cooling supplies are on site and in operational condition. Cooling supplies to check include:

   ____ • Temporary Air Conditioners
   ____ • Port-a-Cool Units

5. C ____ Verify that the On-call personnel have been identified, and their phone numbers are readily available.

6. L ____ Verify hall ventilation fans are in proper operating condition.

   NOTE: Observe fans while running for worn bearings, or other abnormalities. Report any abnormalities to Supervisor.

7. C,L ____ Verify 24 hour service number for Air Conditioning service contractor is correct

8. C,L ____ Check coolant reserves in Maintenance storage tanks.

9. C,L ____ Verify the 24 hour Service number for the Fire Monitoring System is correct.

10. C ____ Inform Plant Manager or designee that the plant has completed preparation for the expected adverse weather conditions.

12.17.5.3 During High Temperature Events

NOTE 1: When working in high temperatures it is much easier to overexert yourself. Take frequent hydration breaks to prevent de-hydration and heat exhaustion.

NOTE 2: Should any individual, while working in high temperatures throughout the plant, become dizzy, experience head-aches, or excessively heavy breathing, that individual must STOP any further physical exertion, notify their Supervisor, and re-hydrate in a cool area.