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DENTON MUNICIPAL ELECTRIC
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Denton·Municipal·Electric¶
1659·Spencer·Rd.,·Denton,·TX·76205·•·(940)·349-7501¶

May 31, 2021

Central Records Filing Clerk
Public Utility Commission of Texas
PO Box 13356
Austin, TX 78711

RE: Emergency Operations Plans- Project No. 53385

Dear Filing Clerk:

Pursuant to Substantive Rule §25.53 of the Public Utility Commission of Texas, please find Denton Municipal Electric's (DME) 2022 Emergency Operations Plans with this filing.

If you have questions or need Additional information, please do not hesitate to contact me by phone (940-349-7561), or by email: smith.day@cityofdenton.com

Sincerely,

Smith L. Day

Smith L. Day
Exec. Manager Regulatory & Risk
Denton Municipal Electric

Electric Service Emergency Operations Plans

April 1

2022

Emergency plan compilation as required by Substantive Rule §25.53 of the Public Utility Commission of Texas.

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Executive Summary

Emergency Operation Plan

The Emergency Operations Plan (EOP) defines policies and procedures that Denton Municipal Electric (DME) should follow in the event of an energy emergency. The plan has been prepared to incorporate appropriate ERCOT and NERC requirements as well as changes in the DME/ERCOT system.

The EOP implements a set of plans to mitigate operating emergencies and implements disaster recovery. These plans consist of roles and responsibilities, processes to prepare for and mitigate emergencies, notification procedures to regulators and customers, resource coordination, and documents the expectations required for the reliable and continued operations of the local and bulk electric system. The plan is a compilation of multiple plans that address specific subjects. The first section is focused on general operations and transmission operations. The second section is focused on the Denton Energy Center generation operations.

The EOP addresses reliability impacts of extreme weather conditions and weather-related hazards, natural disasters, energy capacity shortages, total or partial system blackouts, and security risk to the electric grid. The EOP outlines training, planning, preparedness, coordination, response, and after-action reports to address electric system disturbances.

DME ensures all DME groups have a clear understanding of their responsibilities during emergency situations by reviewing and training on specific tasks bi-annually. Titles and names of the persons having access to and training on the EOP and dates of the access to or training on the EOP are provided in the attached file.

DME, as a department of the City of Denton, recognizes the DME General Manager as the highest-ranking representative, official, and officer with binding authority over DME through the authority granted to the City Manager under Ordinance 22-384. The DME General Manager affirms relevant operating personnel are familiar with and have received training on the applicable contents and execution of the DME EOP and related plans, as well as instruction to follow the applicable portions of the EOP except to the extent deviations are appropriate as a result of the specific circumstances during the course of an emergency. The EOP has been approved by DME Executive Team, drills have been completed, and the EOP has been distributed to local jurisdictions, as needed. DME maintains a Disaster Recovery Plan that addresses returning to normal after disruptions and emergency management personnel have received the latest IS-100, IS-200, IS-700 and IS-800 National Incident Management System training.

Section I - DME Emergency Plans for General Operations and Transmission Operations:

Reference to specific sections and page numbers of the DME's EOP or associated plans that correspond with the requirements of the PUCT Rule 25.53

Section II-- DME Generation Specific Plans for Denton Energy Center (DEC):

Meeting Summary	EOP Training Record
Meeting Title	**Emergency Operations Plan training**
Meeting Start Time	**5/13/2022, 2:50:58 PM**
Meeting End Time	**5/13/2022, 3:44:29 PM**
Full Name	
Ames, Linda M	
Wilkins, Jason L	
Ruiz, Elizabeth C	
Walding, Brian K	
Bridges, Sam E.	
Delira, Melissa	
Looper, Jerry D.	
Puente, Antonio	
Love, Jonathan	
Blackburn, Cassie L	
Zahn, Cameron M	
Brown, Jason W.	
Day, Smith L	
Shepherd, Bill	
Fielder, Jerry G	
Hamby, Brandon S.	
Watts, Bradley J.	
Stastny, Stephen C.	
Amyx, Lanny	
Griffin, Kevin	
Breon, Doug J	
Johnson, Stephen C	
Brown, Jeff	
Lutrick, Chris P	
Gaytan, Jose A	
Naulty, Terrance	

AFFIDAVIT OF ANTOINO PUENTE, JR.

STATE OF TEXAS }
}
COUNTY OF DENTON }

Before me, the undersigned notary public, personally came and appeared:

Antonio Puente, Jr.
1659 Spencer Rd.
Denton, TX 76205

Who, after being duly sworn by me, said:

1. I am over the age of eighteen, suffer no legal disabilities, have personal knowledge of the facts set forth below, and am competent to testify.

2. I am the General Manager of Denton Municipal Electric (DME), a Texas municipally owned utility, and have personal knowledge of the operational facts and circumstances contained within DME's Emergency Operations Plan (EOP);

3. I attest that I am an officer with binding authority to execute this affidavit and authorize the filing of DME's EOP;

4. I attest that relevant operating personnel are familiar with and/or have received training on the applicable contents and execution of the EOP, and such personnel are instructed to follow the applicable portions of the EOP, except to the extent that emergency circumstances dictate appropriate deviations;

5. I attest that the EOP has been reviewed and approved by the appropriate executives;

6. I attest that training/drills have been conducted as required by Public Utility Substantive Rule § 25.53, except that the PUCT's 30 day notice process in § 25.53(f) did not exist prior the drill and could not be utilized.

7. I attest that DME's EOP has been distributed to local jurisdictions as needed;

8. I attest that DME maintains a business continuity plan that addresses returning to normal operations after disruptions caused by a qualifying event;

9. I attest that DME's emergency management personnel who are designated to interact with local, state, and federal emergency management officials during emergency events as part of the City's Emergency Operations Center have received the latest IS-100, IS-200, IS-700, and IS-800 National Incident Management System training.

10. The facts stated herein are based on information and belief and are true and correct to the best of my knowledge.

Antonio Puente, Jr.

Sworn and subscribed before me this

the 23 day of May, 2022

Linda May Ames
Notary Public
My Commission expires: 6-26-2026

LINDA MAY AMES
Notary ID # 129866670
My Commission Expires
06/26/2026

Change Log

Revision	Date	Prepared by	Reviewed by	Approved by	Change summary
0	April 1, 2022 (effective)	J. Looper/J. Brown	Smith Day	Antonio Puente, Jr.	Initial

DENTON MUNICIPAL ELECTRIC

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2022 Emergency Operations Plan (EOP)

This version supersedes previous versions of the EOP: Effective 4/1/2022

Divisions of Electric

Operations, Substations, System Operations, Metering, Distribution, Engineering, & Administration

Table of Contents

In cases of emergency, Denton Municipal Electric (DME) has the responsibility and clear decision-making authority to take whatever actions are needed related to transmission and generation facilities that it operates. DME does not have authority over other Transmission Owner's facilities or the overall reliability of the ERCOT Interconnection

I. Purpose

DME's Emergency Operations Plan implements a set of plans to mitigate operating emergencies and implement disaster recovery. These plans consist of the roles and responsibilities for activating the Operating Plans and the processes to prepare for and mitigate any operating emergencies. This includes notification to ERCOT when experiencing an operating emergency, cancellation of transmission or generation outages, transmission system reconfiguration, redispatch of generation request, provisions for operator-controlled manual load shedding, and reliability impacts of extreme weather conditions. This Plan documents the expectations required for the reliable and continued operations of the (BES) Bulk Electric System by DME System Operations personnel.

II. Scope

In the event of a major system disturbance of the electrical system within ERCOT or locally within DME's system, it is necessary to have procedures in place to cope with events and to restore the system to a normal state as quickly as possible. This plan is designed to define, or where appropriate, reference those procedures located in other documents. This plan applies to all DME TDSP business functions performed by DME under applicable NERC registrations, Joint Registration Agreements, Coordinated Functional Registration Agreements, or Delegation Agreements.

This EOP and all associated plans, procedures, and processes, must be reviewed annually and provided to applicable personnel as part of the required training at DME. A record of the distribution and training that includes names and dates of the training will be retained in an attachment of the EOP and stored in the same folder as the EOP as well as provided to the training department for record retention. Major changes to the EOP or associated plans that require significant changes that warrant a resubmission to ERCOT and PUCT must be resubmitted within 30 days of the approved plans changes. A copy shall be available at the Primary and Backup Control Rooms of the most recent version of this plan for the DME System Operators.

This EOP applies to all DME personnel listed in the Role and Responsibilities section of this EOP. This EOP applies to all DME operated equipment either owned by DME or owned by TMPA within Denton County.

III. Definitions

Emergency – Any abnormal system condition that requires automatic or immediate manual action to prevent or limit the failure of transmission facilities or generation supply that could adversely affect the reliability of the Bulk Electric System

Operating Plan – A document that identifies a group of activities that may be used to achieve some goal. An Operating Plan may contain Operating Procedures and Operating Processes. A company-specific system restoration plan that includes an Operating Procedure for black-starting units, Operating Processes for communicating restoration progress with other entities, etc., is an example of an Operating Plan.

Primary Communication – Primary method of Interpersonal Communication capability with its Reliability Coordinator, neighboring Transmission Operator, or Generator Operator within its Transmission Operator Area.

Alternate Communication – Secondary method of Interpersonal Communication capability with its Reliability Coordinator, neighboring Transmission Operator, or Generator Operator within its Transmission Operator Area.

IV. Key Personnel Roles and Responsibilities

In accordance with the NERC Standards and with ERCOT Protocols and Operating Guides, Denton Municipal Electric dictates and delegates the responsibility and authority to implement real-time actions to ensure the stable operation of the Bulk Electric System to the DME System Operator or designated NERC-certified Transmission Operator. Such actions include shedding of firm load to prevent or alleviate System Operating Limits or Interconnection Reliability Operating Limit violations. These actions shall be executed fully and promptly when determined necessary by the System Operator and/or when received by valid dispatch instructions or directives from ERCOT, unless such actions would create a threat to safety, risk of bodily harm, or damage to equipment, or are otherwise not in compliance with ERCOT Protocols or NERC standards. These actions shall be performed without obtaining approval from higher level personnel within DME.

<u>All Functions/Positions:</u>

Redacted

Redacted

C. DME NIMMS certification requirements
   a. Responsible for Coordinating with COD Emergency Operations Center will be NIMMS certified in 100, 200, 700 and 800
   b. DME Management Staff that have assigned roles responsible for overseeing emergency response within the EOP, Disaster Recovery Plan will be NIMMS certified in 100, 200, 700 and 800.
   c. General worker or Administration staff (field crew members, engineering staff, financial staff, logistics support staff, and administrative assistants) that contribute to the recovery efforts after major system damage will be NIMMS certified in 100 and 700.

Redacted

is "on call", or the person desig

needed by use of the 911 system

Redacted

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Redacted

system via phone call and “ERCOT Outage Scheduler”

Redacted

c. Wildfire
    i. DME uses industry standard construction practices to minimize faults on the transmission and distribution system thereby reducing risk of sparks or melted metal created by faults, from falling to the ground causing wildfires. DME is located in an urban area, minimizing the risk of wildfires affecting the operation or reliability of the electric system
d. Hurricane
    i. DME is in such a geographical area that hurricanes do not have a major impact on the electric system. However, DME does prepare for thunderstorms created by hurricanes when applicable and as described in the Disaster Recovery Plan. TDEM has identified UNT Super Pit as a hurricane evacuation gathering facility along an evacuation corridor. DME has identified the UNT Super Pit as a critical load.
e. Pandemic
    i. See DME Pandemic Response Plan

B. DME will conduct a tabletop discussion bi-annually (winter and summer preparedness) with personnel from Operations, Construction, System Operations, Transmission and Distribution Engineering, Management, Metering, Business Services, and Substations to determine if any extreme weather conditions might affect reliability. DME will address any concerns that the group identified in the exercise before the extreme weather event has any adverse effects on the electric system. Communication of any weather-related issues by ERCOT may come in the form of (OCN's) Operating Conditions Notices, Advisories, Watches, and Emergency Notices. These notices are often given by phone or the ERCOT website.

Redacted

4) Specific emergency plans may have Roles and Responsibilities sections to deal with particular incidents and should be used in those respective situations

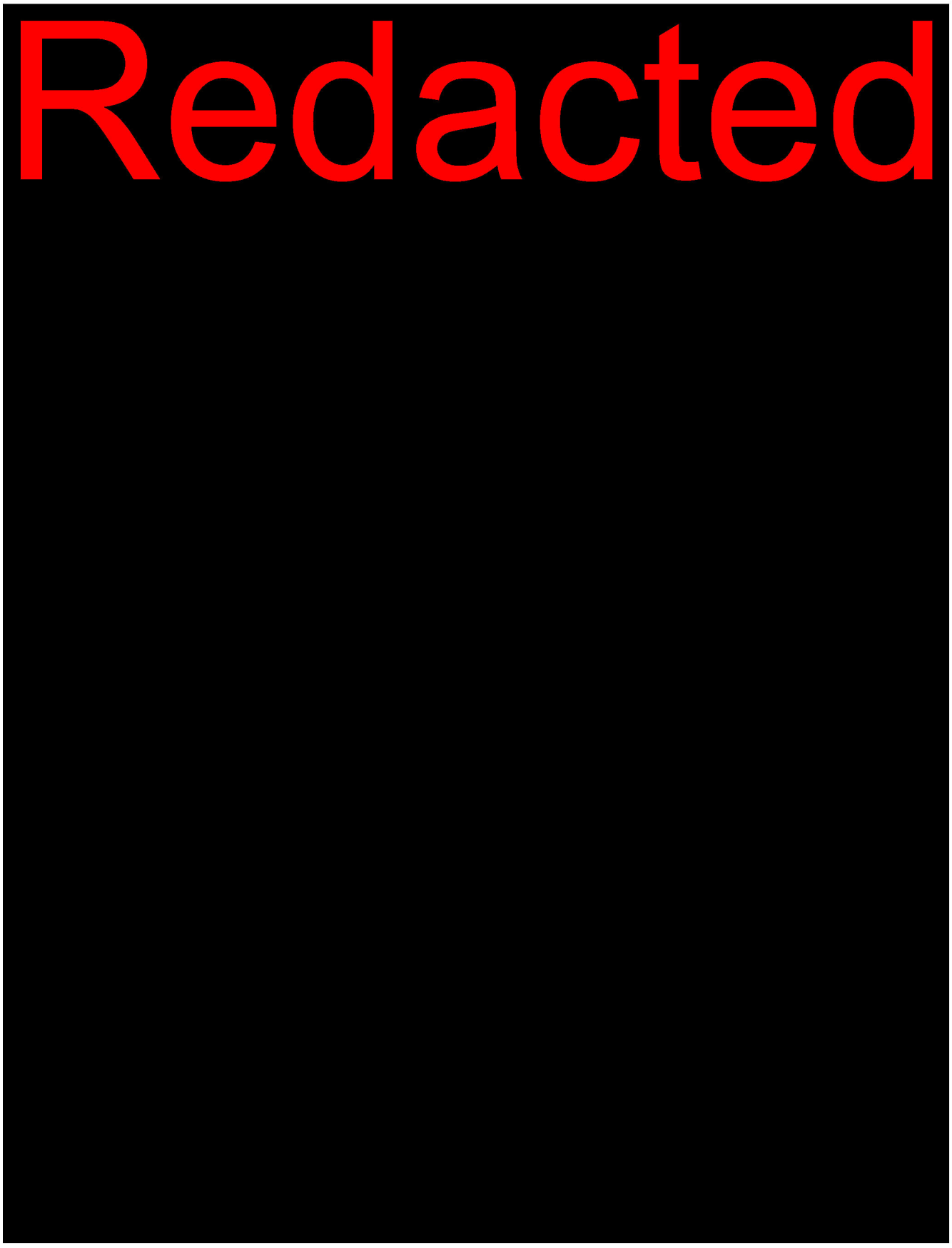
VI. Communications

Redacted

Redacted

VII. Other Related Plans

Redacted



Operations Plans

VIII. Administrative

Annual Reviews and Updates

DME annually reviews and updates emergency plans and provides a copy to ERCOT ISO as applicable.

Document Control
Created by:

Galen Gillum	Feb 2012

Change History:
The change history below reflects changes to the document or its structure

Version	Description of Change	Date
V 01.00	Initial version – this document contains elements from previous versions of SOP-System Operating Procedure and the CP-Contingency Plan	Feb. 2012
V 01.01	Minor changes, typo corrections, dates	Jan 2013
V 01.02	Updated per new PER-001.02 standard	Jan-2015
V 01.03	Added DEC	Aug 2018
V 02.00	Minor Corrections and Changes; added generation, Reviewed for 2020	Jan 2020
V 03.00	Update to include PUCT regulation	April 2022

Review Log:
This document shall be reviewed each calendar year.

Reviewed By:	Title	Date
Jerry Looper	Sys Ops Superintendent	Jan 2013
Larry Helms	Sys Ops Supervisor	Jan 2014
Jerry Looper	Sys Ops Superintendent	Jan 2015
Paul Millsap	Sys Ops Supervisor	Jan 2016
Jerry Looper	Sys Ops Manager	Jan 2017
Jerry Looper	Sys Ops Manager	Jan 2018
Jerry Looper	Sys Ops Manager	Jan 2019
Cameron Zahn	Outage Coordinator	Jan 2020

Cameron Zahn	Outage Coordinator	Jan 2021
Cameron Zahn	Outage Coordinator	Jan 2022

Approved by:	Title:	Date:
Chris Lutrick	Executive Manager of Operations	
	DocuSigned by: Chris Lutrick AF8FF9AE1F5849F...	5/17/2022
Jerry Looper	System Operations Division Manager	
	DocuSigned by: Jerry Looper 8DA3CF308A2B4D9...	5/17/2022
Tony Puente	General Manager of Denton Municipal Electric	
	DocuSigned by: Antonio Puente, Jr. E3760944C2BF4B5...	5/18/2022

DENTON MUNICIPAL ELECTRIC

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Disaster Recovery Plan TDSP

Divisions of Electric
Operations, Substations, System Operations, Metering, Construction, Engineering, Communications & Administration

UPDATE

April 18th , 2022

DME 2022 Disaster Recovery Plan

Table of Contents

DME 2022 Disaster Recovery Plan

I. Purpose

This plan is a guideline only and offers help with resources to deal with a major disaster within the DME service territory. This plan does not supersede any emergency operation plan including the DME Black Start Plan, Load Shed Plan, Backup Control Room Plan, ERCOT Black Start Plan or the DME Emergency Operations Plan. This plan shall not lose sight of the safety of DME customers and employees.

II. Review and Approval

The System Operations Division Manager is responsible for the development, review, after action report, and updates of the Disaster Recovery Plan. The Disaster Recovery Team listed below is responsible for approval of the plan and recommendation of affidavit of affirmation to the City Manager. The Plan will be reviewed and/or updated annually or when major changes to the plan are needed. The revised plan must be submitted to ERCOT and PUCT within 30 days. The plan will be submitted to PUCT annually on by February 15th.

III. Types of Events

1. **Thunderstorm related event**- an event where thunderstorms impact the Denton area and cause considerable damage to transmission or distribution overhead lines including pole or tower damage.
2. **Natural Disaster** - a major adverse event resulting from natural processes of the Earth; examples include floods, tornado, earthquakes, tsunamis, and other geologic processes. A natural disaster can cause loss of life or property damage, and typically leaves some economic damage in its wake, the severity of which depends on the affected population's resilience, or ability to recover.
    a. **Ice Storm/Severe Cold Weather related event** - a type of winter storm that is characterized by freezing rain, which results in the accumulation of at least 0.25-inch of ice on exposed surfaces or projected temperatures for an extended period of time at or below freezing.
    b. **Extreme Heat**- a period of excessive hot weather that be accompanied by high humidity or drought
    c. **Flooding event** – An event where an overflow of water submerges dry land which is normally dry and caused roadways and bridges to be impassable.
    d. **Wildfire**- a large destructive fire that spreads quickly over woodland or brush,
    e. **Hurricane –** a tropical storm that winds have reached a constant speed of 74 miles per hour or more
3. **Pandemic/Epidemic-** infectious disease that is suddenly increasing in cases and/or has spread across a large region or continent.
4. **Cyber Security –** Protecting networks, devices, and data from unauthorized access or criminal use

5. **Physical Security –** Protection of buildings, building sites, and equipment from theft, vandalism, or manmade catastrophe

IV. Roles and Responsibilities

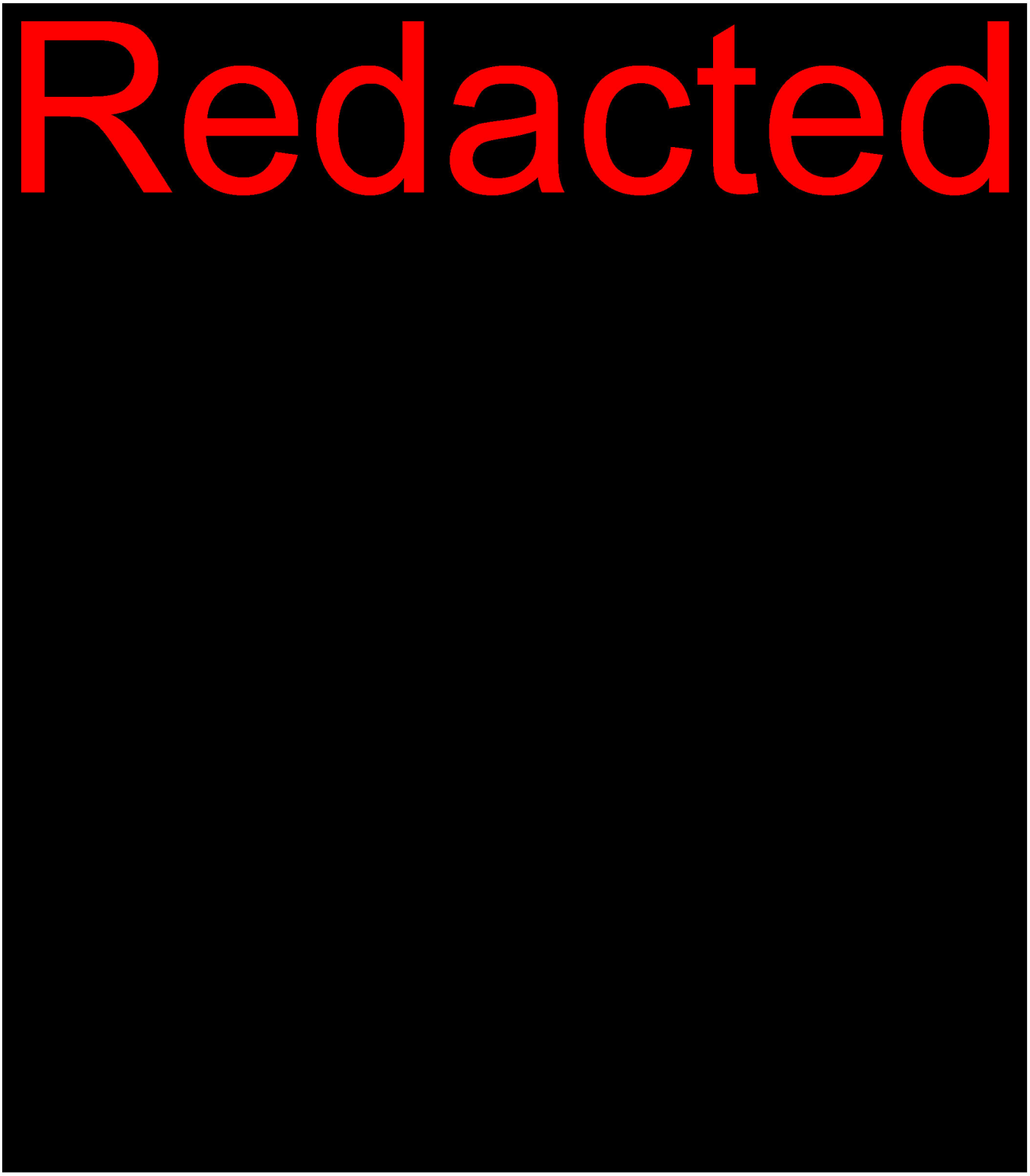
1. **Disaster Recovery Team** – A group of designated personnel including subject matter experts established for the purpose of assisting with and managing the response to the event.
    a. **Disaster Recovery Team Lead** – Person responsible for coordinating the overall response to the event and may assign duties as necessary to appropriate personnel. General Manager or his designee will act as the Team Lead. Other roles may be filled based on the Team Leader's assessment of the event and reporting overall recovery efforts and challenges to the Emergency Operations Center and the City Manager's Office.
    b. **Planning Section Chief**- Responsible for the Disaster Recovery Plan, Damage assessment planning and initiation, Quick Response Team planning, utilization, and initiation, inventory levels planning, and mutual aid.
    c. **Public Information Section Chief**– Person responsible for communication of information released to the media or public as approved by the General Manager, City of Denton's Director of Public Affairs, or their designee.
    d. **Logistics Section Chief**– Persons responsible for acquiring resources from various departments within DME and City of Denton and outside vendors in response to the restoration event and establishing burn rates.
    e. **Technical Support Section Chief –** Person responsible for recovery and functionality of networks, systems, security, and communication facilities to ensure operational capability.
    f. **Operations Section Chief –** Person Responsible for coordination of recovery efforts based on DRT direction and Response Team evaluations
    g. **Engineering Section Chief—**Person responsible for providing engineering level guidance and support for the coordination of recovery efforts and projects based on DRT direction and Response Team evaluations
    h. **Compliance and Safety Section Chief—**Person responsible for maintaining compliance to industry regulations and safety practices for employees and the public
    i. **Incident Reporter** – Person(s) responsible for recording minutes of actions taken place by the DRT for reporting purposes after the event is over.
2. **Disaster Evaluation and Response Team –** A group of people responsible for evaluating the damage to the electric system, reporting their assessment to the DRT's Operations Section Chief, and executing field crew's restoration efforts as directed by the DRT.
    a. **Substation and Transmission Manager—**Person responsible for assessing the extent of damage to substations and transmission lines and overseeing recovery efforts as directed by the DRT
    b. **Distribution System Manager—**Person responsible for assessing the extent of damage to the distribution system and overseeing recovery efforts as directed by the DRT

c. **Operations and Maintenance Manager—**Person responsible for first responders to system damage, overseeing recovery efforts as directed by the DRT
d. **Metering Manager—**Person responsible for assessing damage to the metering system and overseeing recovery efforts as directed by the DRT
e. **Safety Officer—**Person responsible for overseeing the safety of employees and the public in the field. Responsible for Quick Response Logistics Team.
f. **Engineering Supervisor—**Person responsible for coordinating system planning and restoration projects with the team
g. **System Operations Manager-** Person responsible for managing outages, tracking employees working on the system, coordinating restoration efforts with other entities as directed by the DRT

3. **Team Members**

*See Attachment B Disaster Recovery Teams Personnel Assignments

4. **DME Team Member Contact info**



Transmission and Distribution Engineering

V. Seasonal Preparedness Drills

Preparedness is vital to successfully respond to any situation. DME will conduct seasonal exercises (tabletop or simulation) bi-annually for all levels of management. DME will also participate in any drills or exercises conducted by ERCOT for compliance to state and federal regulation and preparedness.

1. Summer Readiness Tabletop conducted in early spring
    a) Summer weather forecast
    b) Expected loading (local and regional)
    c) Areas of system concern
    d) Review of Emergency Plan
    e) Tabletop exercise with a summer or spring theme
        i. Safety (employee and citizen)
        ii. Personnel (availability, stagging, training, PPE)
        iii. Materials (availability, stagging)
        iv. Equipment (availability, stagging)
        v. Process (initiation, response, continuity)
        vi. Finance (burn rate, allocation, total cost)

f) Lesson learned and identify areas of concerns

2. Winter Readiness Tabletop conducted in early fall
   a) Winter weather forecast
   b) Expected loading (local and regional)
   c) Areas of system concern
   d) Review of Emergency Plan
   e) Tabletop exercise with a winter theme
      i. Safety (employee and citizen)
      ii. Personnel (availability, stagging, training, PPE)
      iii. Materials (availability, stagging)
      iv. Equipment (availability, stagging)
      v. Process (initiation, response, continuity)
      vi. Finance (burn rate, allocation, total cost)
   f) Lessons learned and identify areas of concerns

VI. Pre-Emergency Operations

It is necessary to prepare staff, equipment, and materials for impending emergencies. Prior to the start of an emergency DME will take the following steps to prepare when possible

1. Call Executive Team meeting to discuss
   a) Weather Forecast
   b) Expected system damage and locations
   c) Emergency staffing
   d) Resource availability
      i. Materials
      ii. Equipment
      iii. Chemicals
      iv. Fuel
      v. Staffing
   e) What, if any emergency plans to initiate
   f) Order the review of applicable emergency plans
2. Emergency Staffing (in addition to EOP staffing)
   a) DME will gather volunteers to be first responders beyond the normal on-call staff, number of volunteers will depend on the expected severity of the emergency
      i. Provide the list to System Operations
   b) DME may stage personnel on the DME campus, at a City facility or in hotels pre-identified by the City (See City Policy Emergency Lodging 110.04)
   c) DME will notify all DME personnel to be prepared for a "call back to work" instruction
3. Stagging Equipment
   a) DME will take necessary steps to ensure DME equipment is ready to respond to emergencies
      i. Pending frozen precipitation: move bucket trucks and necessary equipment into covered parking

ii. Pending freezing temperatures: add diesel additive to fuel tanks as appropriate

4. Stagging Materials and Chemicals (see attachment II)
   a) DME may stage extra materials at the pole yard, 511 Mayhill, DEC, or Brinker substation
   b) DME will stock trucks and have extra material on hand for quick response units

VII. Disaster Initiation and Return to Business Continuity

DME identifies weather-related hazards by analyzing weather forecast and predict location and severity of possible electrical system outages. Prior to a forecasted weather event that may require the initiation of the Disaster Recovery plan, the System Operations Division Manager will call an Executive Team meeting. The meeting agenda will include weather forecast, expected outage locations, and expected system damage. The DRTL will decide to what extent the Disaster Recovery Plan will be initiated. For un-forecasted events the System Operator on duty will notify the System Operations Division Manager of unexpected system damage that requires above normal resource response. The System Operations Division Manager will contact the Operations Executive Manger to provide a situation report and make recommendations to initiate emergency plans. The Operations Executive Manager will call the DISASTER RECOVERY TEAM LEADER (DRTL) as soon as possible to relay the recommendation, give a situation report and receive direction. The DRTL will determine to what extent the Disaster Recovery Plan will be initiated. The DRTL will then call the DISASTER RECOVERY TEAM (DRT) members as needed to respond to the disaster. DRTL will immediately notify City Manager's Office of the need to implement the Disaster Recovery Plan. The team will meet at one of the following locations: The names and contact information is listed in Section IV. Team Members

DRT will implement the following steps to maintain order during and after a disaster:

1. Start the system and resource evaluation
2. Assess the availability of staff (see section IX. Business Continuity Plan by Division)
3. Acknowledge staff personal concerns (damages at home or family issues)
4. Ensure the safety of the citizens.
5. Ensure the safety of DME's personnel and equipment
6. Communicate with City of Denton's Emergency Operation Center, and City Manager's Office via General Manager or designee
7. Ensure proper procedures are followed and maintained throughout
8. Evaluate information of system condition

9. Map out action plan
10. Start restoring power to critical loads
11. Coordinate with other City departments and neighboring entities

Return to Business Continuity
The DRTL will determine when to return to normal operations depending on the situation, and considering the following:
1. Number of outages
2. Damage to the system
3. Expected recovery times
4. Employee availability

DRTL will notify the City Manager's Office and Emergency Operations Center of the return to normal operations

VIII. Primary and Backup Control Room Status TDSP and EMO

1. **Verify status of buildings at both locations and determine best location to operate from.** (Use Control Center Check list attached to Backup Control Center Process to verify control room status)
2. **Communication** (Use the Backup Control Room process to relocate to the backup site if needed)

IX. Event Level

1. **Level 1- Small Impact Event** (Normal Operations): System activity is normal with response coordinated with local on-call personnel. Disaster Recovery Plan is not activated
2. **Level 2- Moderate Impact Event** (Heightened Alert/Activity): The severity within the service territory is such that restoration efforts are generally accomplished with

departmental resources within a 12 to 36-hour period. Contractors may need to assist. Disaster Recovery Plan may not be activated

3. **Level 3- Serious Event** (Enhanced support): The severity within the service territory is such that restoration efforts are accomplished with departmental resources within a 24 to 48-hour period. Contractors may need to assist as well as another mutual aid utility. Disaster Recovery Plan should be activated.
4. **Level 4- Major Impact Event** (Comprehensive Support): The severity within the service territory is such that restoration efforts are generally accomplished with assistance from other regions within a 36 to 72-hour period. Mutual aid assistance from other utilities and contractors will be needed. Disaster Recovery Plan will be activated.
5. **Level 5- Catastrophic Event** (Emergency Support): The severity within the service territory is such that restoration efforts are generally accomplished with assistance from other regions, contractors, and mutual aid utilities in excess of 72 hours. Contractors and mutual aid utilities will be required as well as other support personnel as dictated by the restoration effort. Disaster Recovery Plan will be activated.

X. System Status

1. Number of outages
2. Current and forecasted weather conditions
3. Damage assessments
4. Restoration Priorities
5. Forecasted resource requirements
6. Regional system capacity and reserves, local system capacity
7. Communication status

XI. Transmission and Substations Evaluation

XII. Distribution System Evaluation

The first responding operation personnel should start evaluating the distribution system. DERT will assign additional personnel to evaluate the entire system in a systematic

fashion using Meter and Engineering staff lead by the Distribution Engineering Supervisor (Doug Breon)

1. Report all findings to the DRT
2. Use the Evaluation Sheets Exhibit 2 and 3
3. Alert Construction Manager
4. Alert Operation and Maintenance Manager
5. Alert Engineering Manager

XIII. Other Emergency Plans

The Disaster Recovery Plan does not overrule or supersede any of the following plans or any other DME process or procedure

1. Black Start Plan
2. Load Shed Plan
3. Emergency Operations Plan
4. Backup Control Room Plan

XIV. Specific Contingencies

Redacted

2. **Loss of multiple Transmission poles**
    a. Use of (CONTRACTOR) and oversight provided by Substations personnel
3. **Loss of multiple distribution poles**
    a. Use of (CONTRACTOR) and oversight provided by Construction Department
4. **Loss of DME Campus**
    a. Utilize Denton Energy Center Guard Shack and offices for work areas and use rock base area for equipment staging and materials storage
    b. See City of Denton Business Continuity Plan

XV. Staging areas

1. **Denton Energy Center**
    a. Has both office space and equipment yards
2. **Cooper Creek Substation**
    a. Equipment yard
3. **Brinker Substation**
    a. Equipment Yard

XVI. Emergency Generators

Redacted

XVII. 800MHz RADIO SYSTEM

3. **Denton County EOC Radio Site**

Redacted

4. **County Radio Site (Core)**

Redacted

5. **National connectivity**

Redacted

XVIII. Ensure the Safety of DME personnel and customers

The DRT members shall stress safety first above all else during the restoration process. The APPA safety manual shall be used as a reference guide and template for safety practices. DRT will appoint additional safety coordinators to assist the Safety and Training staff if needed to help with periodic safety checks of the crews working and to evaluate customer safety situations.

1. Report all safety violations to the Safety Manger
2. Safety will be responsible for safety of employees and customers
3. Report all potential customer safety situations to the Safety Manager
4. Alert Safety and Training Staff and supervisors
5. Alert Public Information Section Chief and Public Information Office staff for help with public notices about safety or hazards associated with the damage and for system improvements updates.

XIX. Communication of Information and Coordination

1. **Public Information Section Chief** will coordinate communications with the following:
    a. City Management
    b. Public Information office
    c. Public Utility Commission
    d. Social Media

   e. DME staff progress reports
2. Affected Electric Customers
   a. Use of the DME Outage Communication Plan and the City of Denton Communications Plan
3. **Working with the Emergency Operations Center will help with public involvement and provide much needed resources.**
   a. Establish communications with the EOC

   ii. EOC:940-349-8899
   iii. Police and Fire contact numbers

Denton Police Department 940-349-8181	Highway Patrol 940-484-6661
University of North Texas Police 940-565-3000	Texas Women's University Police 940-898-2911
Denton County Sheriff Department 940-349-1601	Denton Fire Department 940-349-8110

XX. Ensure proper procedures are followed and maintained

The DRT will provide guidance and direction to field personnel, neighboring entities, and emergency departments.

1. Ask for assistance from other utilities
   a. Fill out Mutual Aid Agreement (Attachment 1)
2. Ask Denton PD for security if needed
3. Stress Safety
4. Appoint DRT member to be responsible for compliance to regulatory, safety, departmental, and City of Denton policy.
5. Review this document bi-annually

XXI. Evaluate system condition and create action plan

Prioritize information from field crews and determine a plan of action to restore power to critical loads, UFLS breakers, and then restore all loads.

1. DRT will assign evaluation tasks to DME personnel as necessary and execute the assessment using a systematic approach
2. Field evaluations will be reported to the DRT which will combine and associate damaged areas as necessary
3. DRT will assess the damage reports and assign priority based on critical needs of the electric system

a. Use the Load Shed plan to determine critical load feeders and UFLS breakers.
b. Use the DME Black Start Plan in conjunction with the ERCOT Black Start Plan to restore power if needed.
c. Obtain a Residential Life Support list from Customer Service
d. Engineering and System Operations will advise the DRT about priority restoration.
e. DRT will create action plan and direct restoration efforts accordingly

XXII. Resources and vendor list

Below is a list of resources and vendors that may be useful during this time.

1. Contacts for crane services

CRANE SERVICES:

2. Utility supply contactors

3. **MISC contact DME works with**

4. **Rental Equipment**

5. **Catering**

DENTON **LEWISVILLE**

6. **Fuel Tank Rentals**

7. **Hospitals**

Redacted

8. **Laundry services**

Redacted

9. **Portable Toilet**

Redacted

Redacted

10. Security Officers

Redacted

11. Tents

Redacted

XXIII. Exhibit 1

Substation and Transmission Evaluation Sheet

Evaluator:		
Truck Number:		
Radio Channel:		
Substation:		
Date:	Time:	
Building	Outside	
	Roof	
	Walls	
	Doors	
	Inside	
	Ceiling	
	Walls	
	Floor	
Equipment	Inside	
	Batteries	
	Changer	
	RTU	
	Switchgear	
	Breakers	
	Outside	
	Breakers	
	Transformers	
	Steel	
	Bus	
	PT	
	CCVT	
Fence		
	Gates	
	Walls	

Comments: _____

XXIV. Exhibit 2

Distribution System Evaluation Sheet

Evaluator:
Truck Number:
Radio Channel:
Feeder:
Date: Time:

Note: Count the number of items and multiply by the hour multiplier.

Main Line

Poles

Inline	=() X2= Hours
Dead-end	=() X3= Hours
Double Dead-end	=() X3.5= Hours
Angle	=() X2= Hours

Transformers

Single Phase (S) Three Phase (T)

(S) 120/240	=() X1= Hours
(S) 240/480	=() X1= Hours
(T) 120/240 Open Delta	=() X2= Hours
(T) 120/240 Close Delta	=() X2= Hours
(T) 120/208 Wye	=() X2= Hours
(T) 277/480 Wye	=() X2= Hours
(T) 240/480 Open Delta	=() X2= Hours
(T) 240/480 Close Delta	=() X2= Hours
	Hours
Capacitors	
600 kVAR	=() X2= Hours
900 kVAR	=() X2= Hours
1200 kVAR	=() X2= Hours
Anchors	=() X1.5= Hours

		Hours.
	Total Number of Hours from all items.	

XXV. Exhibit 3

Distribution Materials Sheet

Overhead (O) Pad mount (P) Single Phase (S) Three Phase (T)	
Transformers	Note: Number of Units; Ex: Open Delta Means 2 Units.
(O)(S) 15KVA	
(O)(S) 25KVA	
(O)(S) 37.5KVA	
(O)(S) 50KVA	
(O)(S) 75KVA	
(O)(S) 100KVA	
(O)(S) 167KVA	
(O)(S) 333KVA	
(P)(S) 25KVA	
(P)(S) 50KVA	
(P)(S) 75KVA	
(P)(S) 100KVA	
(P)(S) 167KVA	
(P)(T) 75KVA	
(P)(T) 112.5KVA	
(P)(T) 150KVA	
(P)(T) 225KVA	
(P)(T) 300KVA	
(P)(T) 500KVA	
(P)(T) 750KVA	
(P)(T) 1000 kVA	
(P)(T) 1500 kVA	
(P)(T) 2000 kVA	
(P)(T) 2500 kVA	
Poles Wood	
35'	
40'	
45'	

50'	
55'	
60'	
65'	
75'	
85'	
Other	
Poles Fiberglass	
35'	
40'	
Poles Alum.	
35'	
40'	
Poles Steel	
40'	
45'	
50'	
55'	
Crossarms	
Hughes Arm	
8' Wood	
10' Wood	
4' Fiberglass DE	
FG Steer horn	
Ridge Pin	
Streetlights	
24" Arm	
8'Arm	
16' Arm	
100 HPS	
250 HPS	
400 HPS	
250 MH	
400 MH	
Bells Distribution	
Bells Transmission	
Other Items	

XXVI. Attachment 1

NATIONALLY ACCEPTED APPA/NRECA
MUTUAL AID AGREEMENT FORM

In consideration of the mutual commitments given herein, each of the Signatories to this Mutual Aid Agreement agrees to render aid to any of the other Signatories as follows:

1.) Request for aid. The Requesting Signatory agrees to make its request in writing to the Aiding Signatory within a reasonable time after aid is needed and with reasonable specificity. The Requesting Signatory agrees to compensate the Aiding Signatory as specified in this Agreement and in other agreements that may be in effect between the Requesting and Aiding Signatories.

2.) Discretionary rendering of aid. Rendering of aid is entirely at the discretion of the Aiding Signatory. The agreement to render aid is expressly not contingent upon a declaration of a major disaster or emergency by the federal government or upon receiving federal funds.

3.) Invoice to the Requesting Signatory. Within 90 days of the return to the home work station of all labor and equipment of the Aiding Signatory, the Aiding Signatory shall submit to the Requesting Signatory an invoice of all charges related to the aid provided pursuant to this Agreement. The invoice shall contain only charges related to the aid provided pursuant to this Agreement.

4.) Charges to the Requesting Signatory. Charges to the Requesting Signatory from the Aiding Signatory shall be as follows:

   a.) Labor force. Charges for labor force shall be in accordance with the Aiding Signatory's standard practices.

   b.) Equipment. Charges for equipment, such as bucket trucks, digger derricks, and other special equipment used by the Aiding Signatory, shall be at the reasonable and customary rates for such equipment in the Aiding Signatory's location.

c.) Transportation. The Aiding Signatory shall transport needed personnel and equipment by reasonable and customary means and shall charge reasonable and customary rates for such transportation.

d.) Meals, lodging and other related expenses. Charges for meals, lodging and other expenses related to the provision of aid pursuant to this Agreement shall be the reasonable and actual costs incurred by the Aiding Signatory.

5.) Counterparts. The Signatories may execute this Mutual Aid Agreement in one or more counterparts, with each counterpart being deemed an original Agreement, but with all counterparts being considered one Agreement.

6.) Execution. Each party hereto has read, agreed to, and executed this Mutual Aid Agreement on the date indicated.

Date

_____

Entity

_____(*name/ state*)

Signed By _____ (*please type name and then include original signature*)

Title

_____

XXVII. Pre-Identified Material and Chemical Staging List

Materials:
Crossarms
Various primary and secondary connectors
Insulators
Ground wire
Various hardware (nuts and bolts)
Pad locks
Various fuses
Lightning Arrestors
#2 triplex on the trucks and 2/0,4/0 rolls in staging area
100- and 200-amp cutouts
Tie wire
#2, 2/0, and 4/0 service tries
Chainsaw chains

Check pole and transformer inventory

Chemicals:

Diesel additive
Diesel Fuel
Gasoline
De-icer
SF6 gas
Pole foam
Pre-mix 50:1 small engine fuel

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

Version	Description of Change	Date
V 01.00	Initial version	1/1/2020
V 02.00	Updated version	1/1/2021
V 03.00	Included PUCT Rule 25.53	4/18/22

Review Log:

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

Reviewed and Approved By	Title	Date
Jerry Looper	System Operations Division Manager	1/1/2020
Jerry Looper	System Operations Division Manager	1/1/2021
Jerry Looper	System Operations Division Manager	4/18/22

Table of Contents

1. Purpose

1.1. Purpose of the DME Outage Communication Plan - The Outage Communication Plan is used to communicate outage information from System Operators to Department Management, Executive Management, Public Relations, and any other DME personnel that may require this information. The plan also includes the procedure to provide outage information to the PUCT when certain criteria are met.

2. Criteria

2.1. Number of Customers Out – DME Communication notifications are based on the size of the outage (the number of customers without power) and/or the customers involved in the outage (critical loads, etc.). Listed below are the guidelines for execution of the DME Outage Communication Plan. Steps in this process may be adapted if they create a safety hazard to people or property.

2.1.1. DME Guidelines – The following guidelines will be used by DME System Operators to determine when escalations in communication should occur.

2.1.1.1. Under 25 Customers - The System Operator will confirm the Outage on the OMS System. The System Operator will notify the Utility Dispatcher. The Utility Dispatcher will send a notification on the Text Power App. A call to the Supervisor is not necessary at this point.

2.1.1.2. 25 to 50 Customers - The System Operator will confirm the Outage on the OMS System. The System Operator will notify the Utility Dispatcher. The Utility Dispatcher will send a notification on the Text Power and Twitter Apps. A call to the Supervisor is not necessary at this point.

2.1.1.3. 50 to 100 Customers - The System Operator will confirm the Outage on the OMS System. The System Operator will notify the Utility Dispatcher. The Utility Dispatcher will send a notification on the Text Power and Twitter Apps. The immediate Supervisor will be notified within 10 minutes.

2.1.1.4. > 100 Customers - The System Operator will confirm the Outage on the OMS System. The System Operator will notify the Utility Dispatcher. The Utility Dispatcher will send a notification on the Text Power and Twitter Apps. The immediate Supervisor will be notified within 10 minutes. The System Operations Manager will be notified within 15 minutes.

2.1.1.5. Discretionary - Any outage affecting any number of customers that is determined by the System Operator to be serious enough to warrant communication to management may be reported. The System Operator will

confirm the Outage on the OMS System. The System Operator will notify the Utility Dispatcher who will send a notification on the Text Power and Twitter Apps, as necessary. The immediate Supervisor will be notified within 10 minutes. The System Operations Manager will be notified as necessary.

2.1.2. PUCT Guidelines - Follow the PUCT approved criteria and definitions in Attachment C. If any outage satisfies criteria stated by PUCT Guidelines, then it will be reported. The System Operator will confirm the Outage on the OMS System. The System Operator will notify the Utility Dispatcher. The immediate Supervisor will be notified within 10 minutes. The System Operations Manager will be notified as necessary. The PUCT will be notified as necessary by System Operations Supervisory Staff.

2.2. Critical Loads – Redacted

2.2.2. PUCT - PUC Subst. R 25.52 – Electric Substantive Rules - Chapter 25 - 25.52 - Reliability and Continuity of Service (texas.gov)

2.3. Required Information - When outages are reported, the following information will be provided by the System Operator in all communications. Additional information may be included as necessary.

Redacted

2.4. Contact Information – Redacted

2.4.3. PUCT - The PUCT email used to report outages or major events based on guidelines listed in the PUCT Electric Substantive Rules 25.52 (Electric Substantive Rules - Chapter 25 - 25.52 - Reliability and Continuity of Service (texas.gov)) is outages@puc.texas.gov

3. Procedure

3.1. Initial Outage Notification – All outages will be analyzed as soon as possible by the System Operator. Once the System Operator determines that the outage is valid, the Outage Communication Plan is implemented in parallel with the management of the Outage. The criteria for Initial Outage Notifications are located in section 2.3.1 of this document.

Redacted

3.2. Update Notification – When updates are provided to the System Operator by Field Personnel, or other personnel involved, the System Operator has the option to communicate those options to all parties involved. The criteria for Updates are located in section 2.3.2 of this document.

Redacted

3.3. Final Notification – When power is restored, and the Field Crews have completed all work, they will report all necessary information to the System Operator. This information will be verified as correct and accurate. The criteria for Final Notifications are located in section 2.3.3 of this document.

Redacted [redacted]

[redacted]

[redacted]

3.4. PUCT Notification – If at any point during this process any of the PUCT criteria are met, a member of the System Operations Supervisory Staff will send an email to the PUCT contact email address (Section 2.4.3 of this document). The email will state which PUCT criteria is met, and the necessary details related to the affected area. The DME-Outage Notification Group will be Cc on this email as well.

4. Major Events

4.1. Strategy – Major Events are interruptions that result from a catastrophic event that exceeds the design limits of the electric power system, such as an earthquake or an extreme storm. These events can affect the entire ERCOT grid or smaller portions of it. A Major Event may not directly damage the DME system, but DME may still need to take steps to respond to a Major Event. These actions include, but are not limited to, Load Shedding, Blackstart Restoration, etc. Major Events may cause or be the result of emergency situations.

4.1.1. Communicating with the Public – DME System Operations staff will notify the DME Business Services department so that they can post messages on the DME social media platforms. When time permits, messages may be shared using the IVR and TextPower applications.

4.1.2. Communicating with the Media – The DME Business Services department will share information with the City of Denton Public Information Office (PIO). The PIO will release statements to the media.

4.1.3. Communicating with Customers – DME System Operations staff will notify the DME Business Services department so that they can post messages on the DME social media platforms. When time permits, messages may be shared using the IVR and TextPower applications.

4.1.4. Communicating with Local and State Governmental Entities, Officials, and Emergency Operations Centers – DME staff will participate in TDEM and Denton County scheduled meetings, as directed.

4.1.5. Communication with the Reliability Coordinator – DME System Operators will be in regular communication with ERCOT using any available communication system appropriate for the situation. This is outlined in the DME Data and Voice Communications Process and the DME Emergency Operations Plan.

4.2. Plan Changes During Emergency Situations – During an emergency situation, or a Major Event, a large volume of outages may require changes to this plan to better accommodate effective communications. Any Criteria from Section 2 of this plan may be removed or adapted in an emergency situation, or a Major Event. Any Procedure steps in Section 3 of this plan may be removed or adapted in an emergency situation, or a Major Event. Updated outage information will be communicated as necessary to relevant personnel in an emergency situation, or a Major Event.

4.3. Scheduled Updates – During an extended emergency situation, or Major Event, a conference call will be scheduled and executed at least twice a day. This call will relay information about the local impact of the emergency, the regional impact of the emergency, expected recovery times, and any other relevant information related to the emergency situation, or a Major Event. The audience of this call may include representatives for DME Executive Management, representatives for critical and key account customers, representatives from other affected City of Denton departments, or any other invited parties that would benefit from the information.

5. Update Plan

5.1. When to Update - The DME Outage Communication plan will be updated annually, or as required, due to any changes to the information, guidelines, or criteria included in the plan.

5.1.1. Check emergency contact information for DME on PUCT website annually. Electric Substantive Rules - Chapter 25 - 25.52 - Reliability and Electric Substantive Rules - Chapter 25 - 25.52 - Reliability and Continuity of Service (texas.gov)Continuity of Service (texas.gov). Update as necessary. The required Project code to make changes is 26840.

5.1.2. Update Critical Load Information annually or as necessary.

5.1.3. Update Distribution Feeder Information annually or as necessary.

5.1.4. Update Links to PUC Subst. R 25.52 annually or as necessary.

Prepared by:

Jonathan Love	7/13/2020

Change History:

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

Version	Description of Change	Date
V 01.00	Initial version	7/13/2020
V 01.01	Removed Attachments; Added Emergency Situations	12/14/2021
V 01.02	Updates related to PUC rules	3/29/2022

Review Log:

This document shall be reviewed once each calendar year.

Reviewed By	Title	Date

DENTON MUNICIPAL ELECTRIC

Energizing tomorrow's community today!

2022 Load Shed Plan

Effective Date:3/8/2022

Version 3.1

Divisions of Electric

Operations, Substations, System Operations, Construction, & Engineering

Table of Contents

I. Introduction

In the event of a major system disturbance of the electrical system within ERCOT, it is necessary to have procedures in place to cope with events and restore the system to a normal state as quickly as possible. This plan is designed to provide guidance and reference material should there be a need for Emergency Load Shed.

II. Purpose

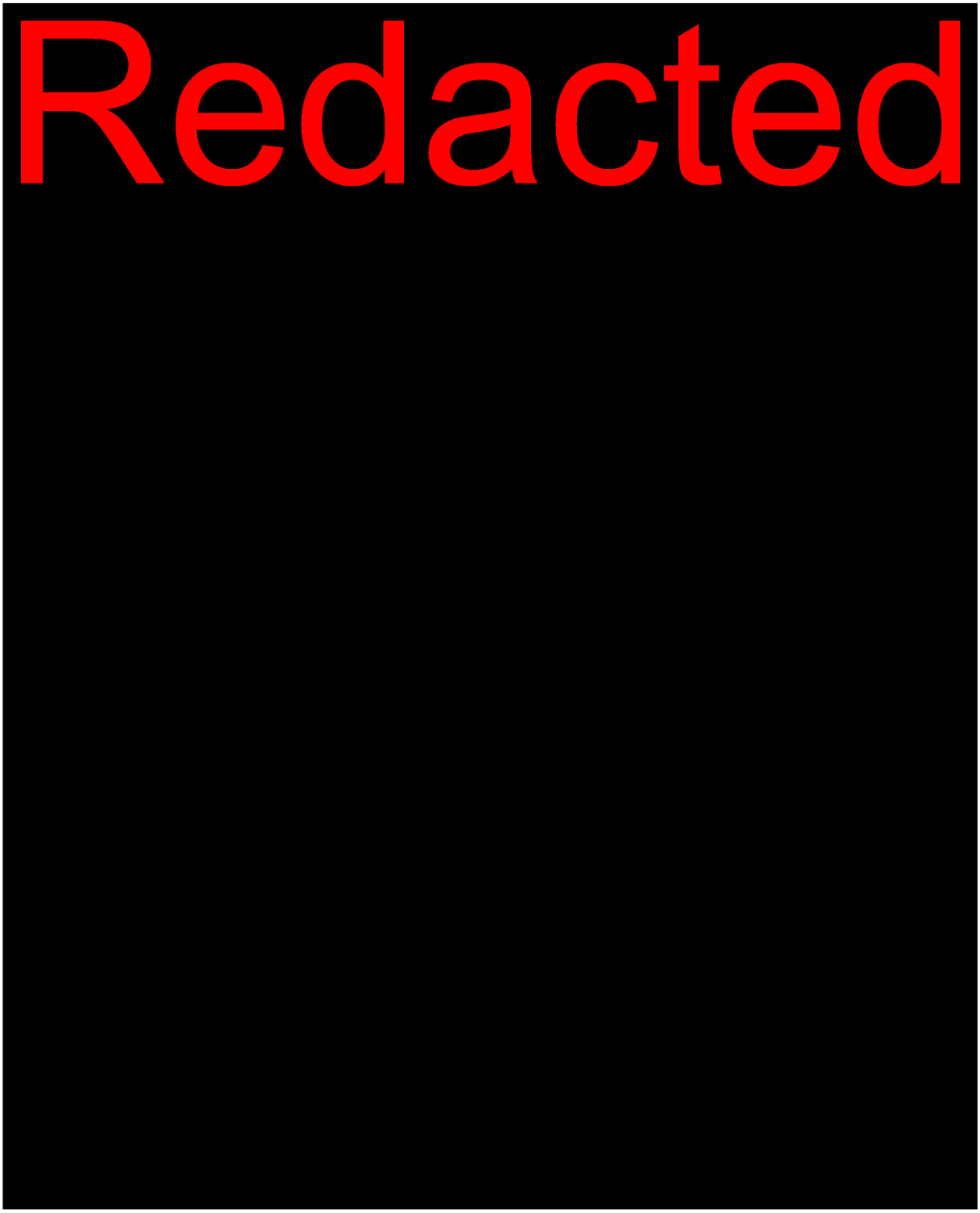
The purpose of this plan is to provide a detailed list of feeders and directions for shedding load if ERCOT issues a load shed directive to Denton Municipal Electric or load shed is necessary to maintain a reliable bulk electric system. Once a directive has been received or decision has been made to shed load, the procedures of this plan should be followed to the extent possible. Each event poses different problems and will warrant different responses. This is a general guide for coping with load shed and System Operators may need to deviate from these procedures to produce the desired results. System Operators have the authority and responsibility to implement these approved procedures and to deviate from these procedures if necessary, without approval.

III. Strategies

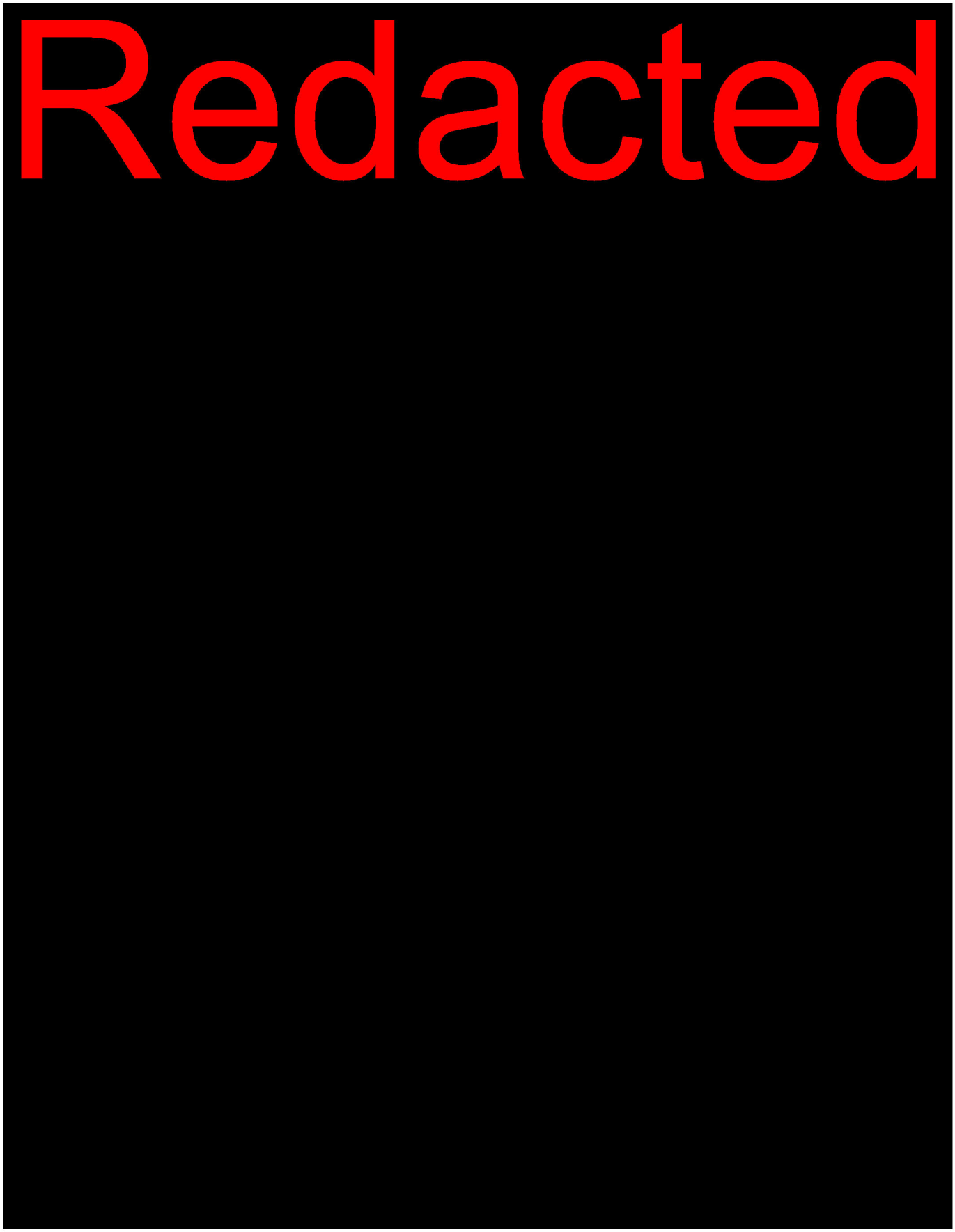

Redacted


Redacted

Attachment A - ERCOT Load Shed Table



Attachment B – Emergency Load Shedding Feeders (Next Page)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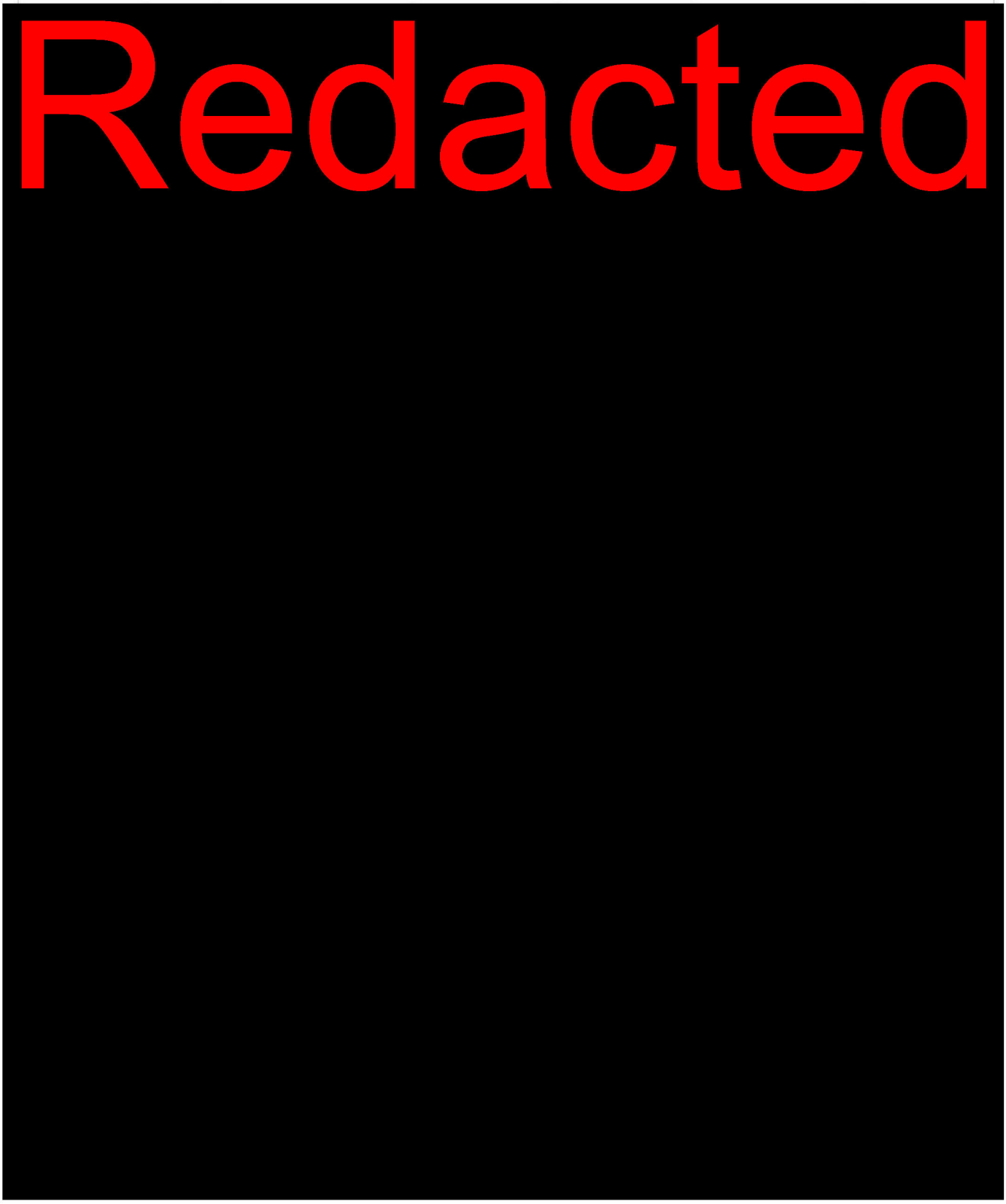
Attachment C - Automatic Under-Frequency Load Shed (UFLS) Feeders



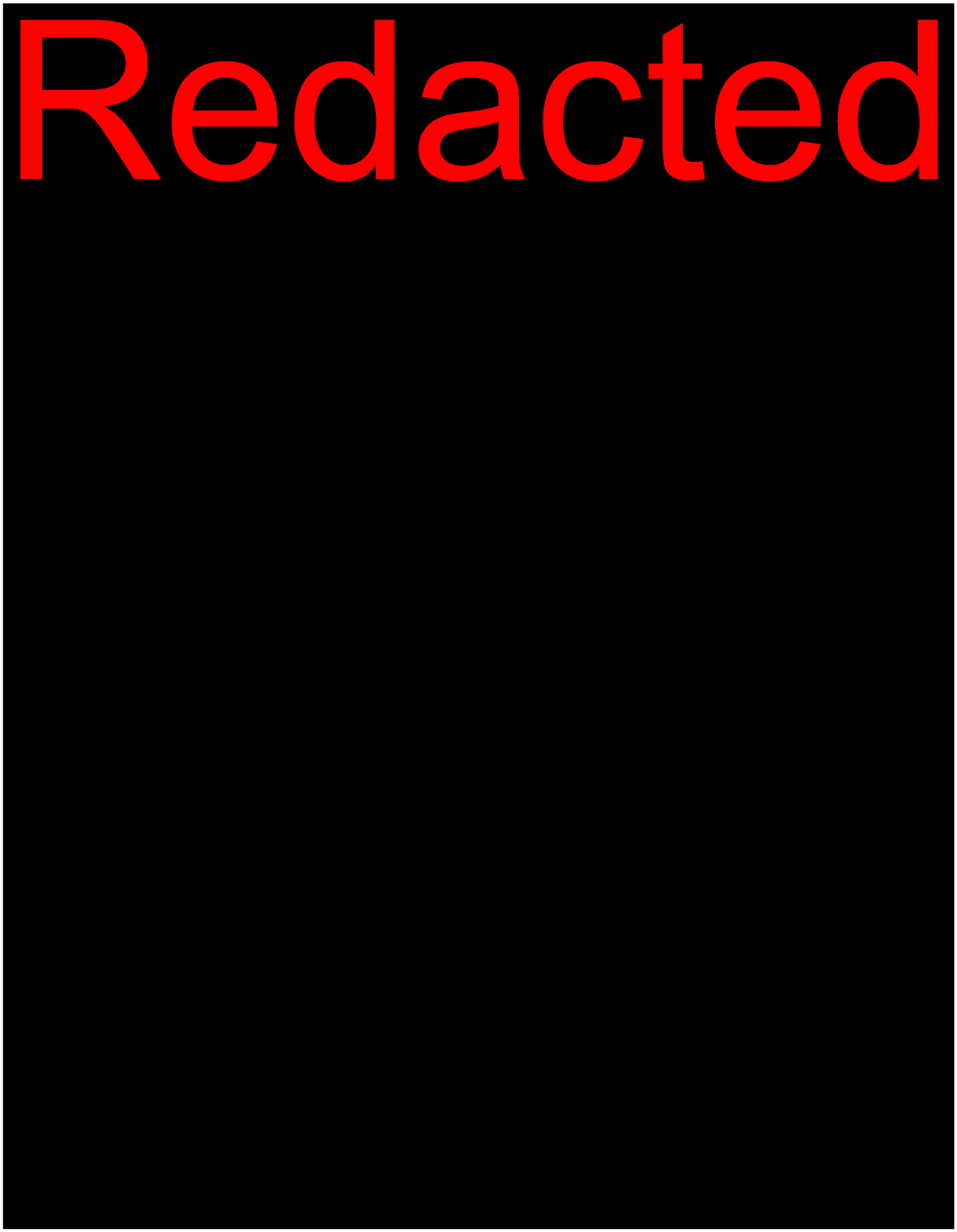
The Critical Load Customers are defined by the PUCT- Chapter 25 as:

Critical Load Public Safety Customer – A customer for whom electric service is considered crutial for the protection or maintenance of public safety, including but not limited to hospitals, police stations, fire stations, and critical water and wastewater facilities.

Critical Load Industrial Customer – An industrial customer for whom an interuption or suspention of electrical service will create a dangerous or life-threatening condition on the retail customer's premises, is a "critical load industrial customer." (DME does not reconginize any Critical Load Industrial Customers in it's service area at this time)

Redacted

Redacted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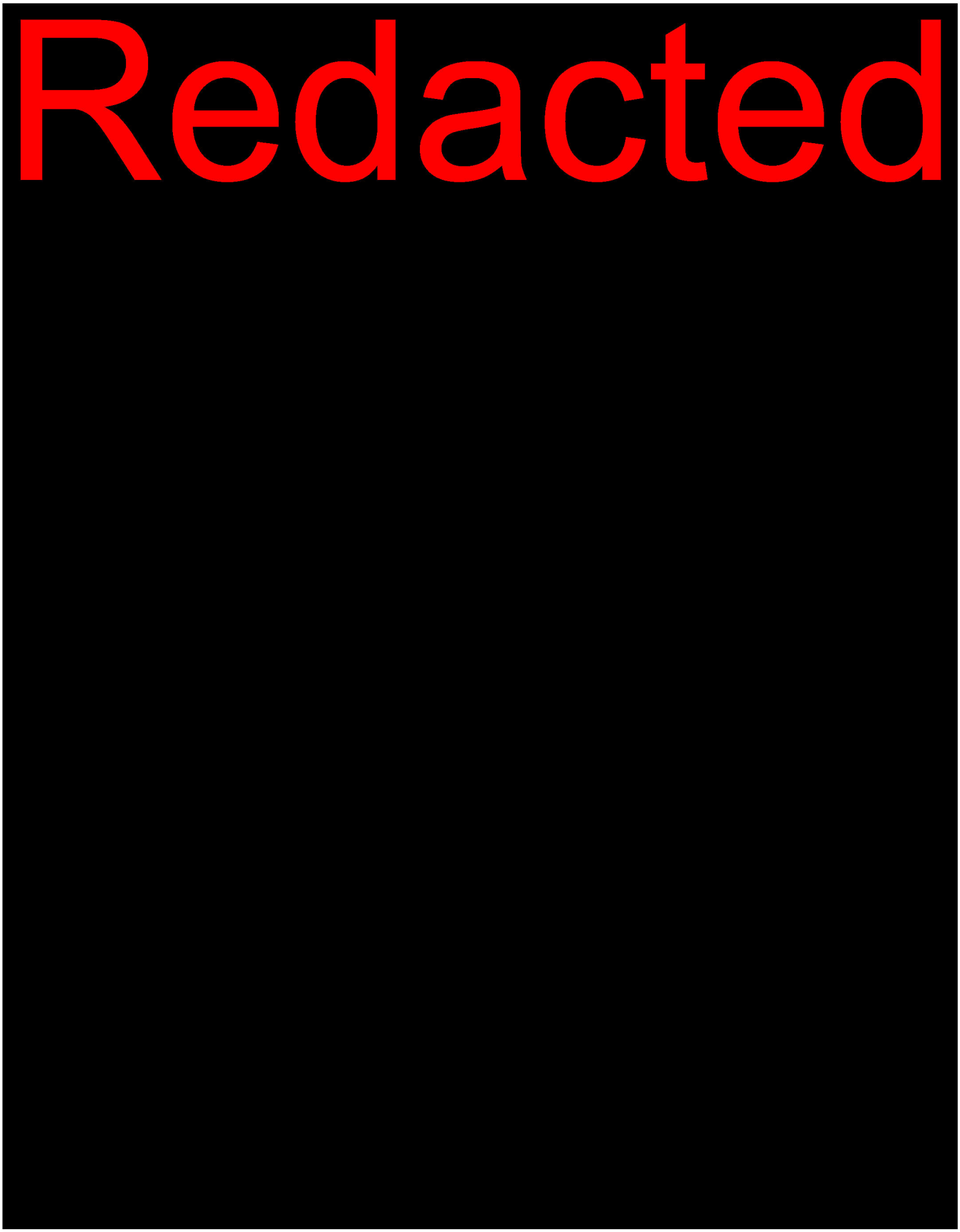
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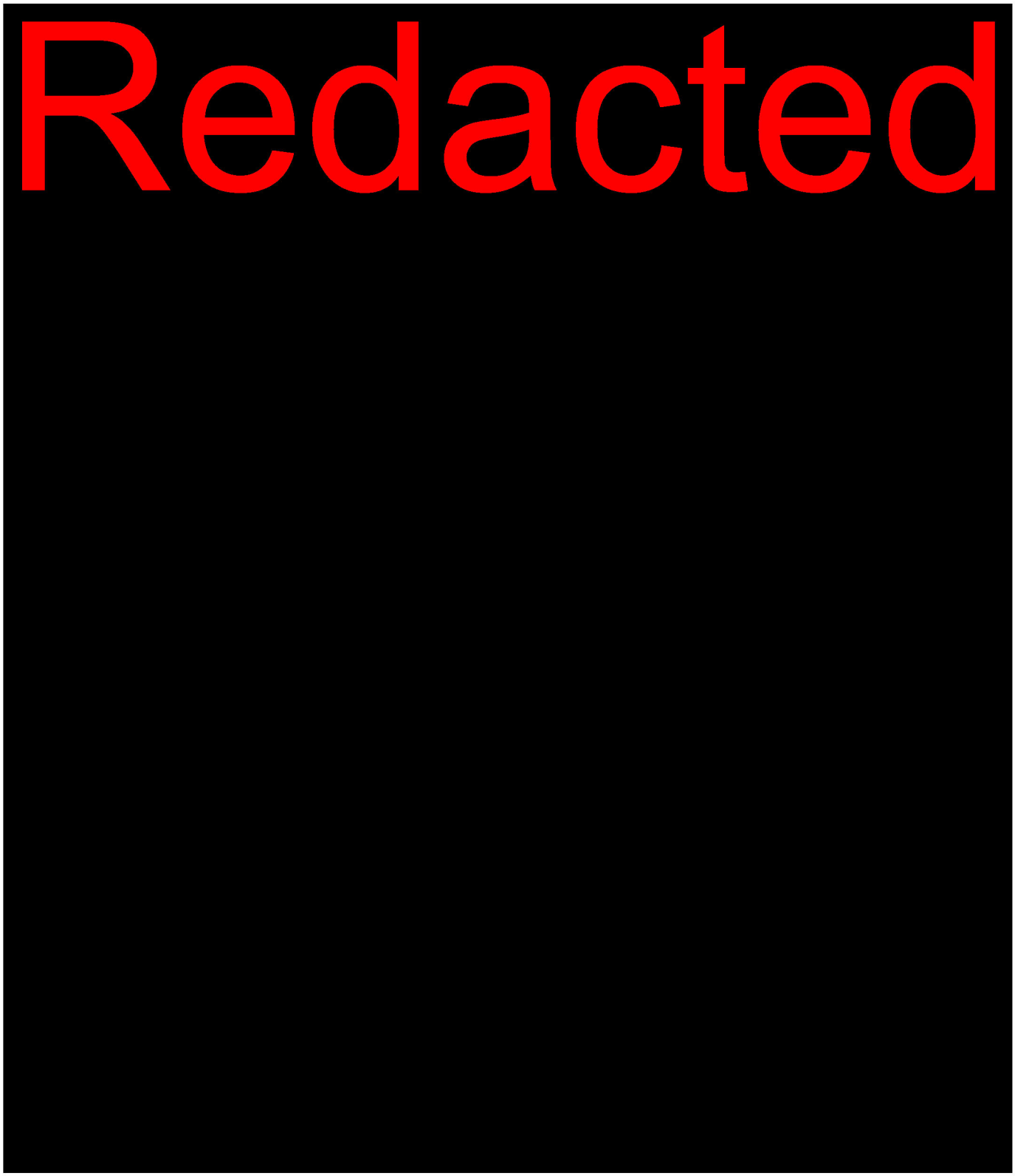
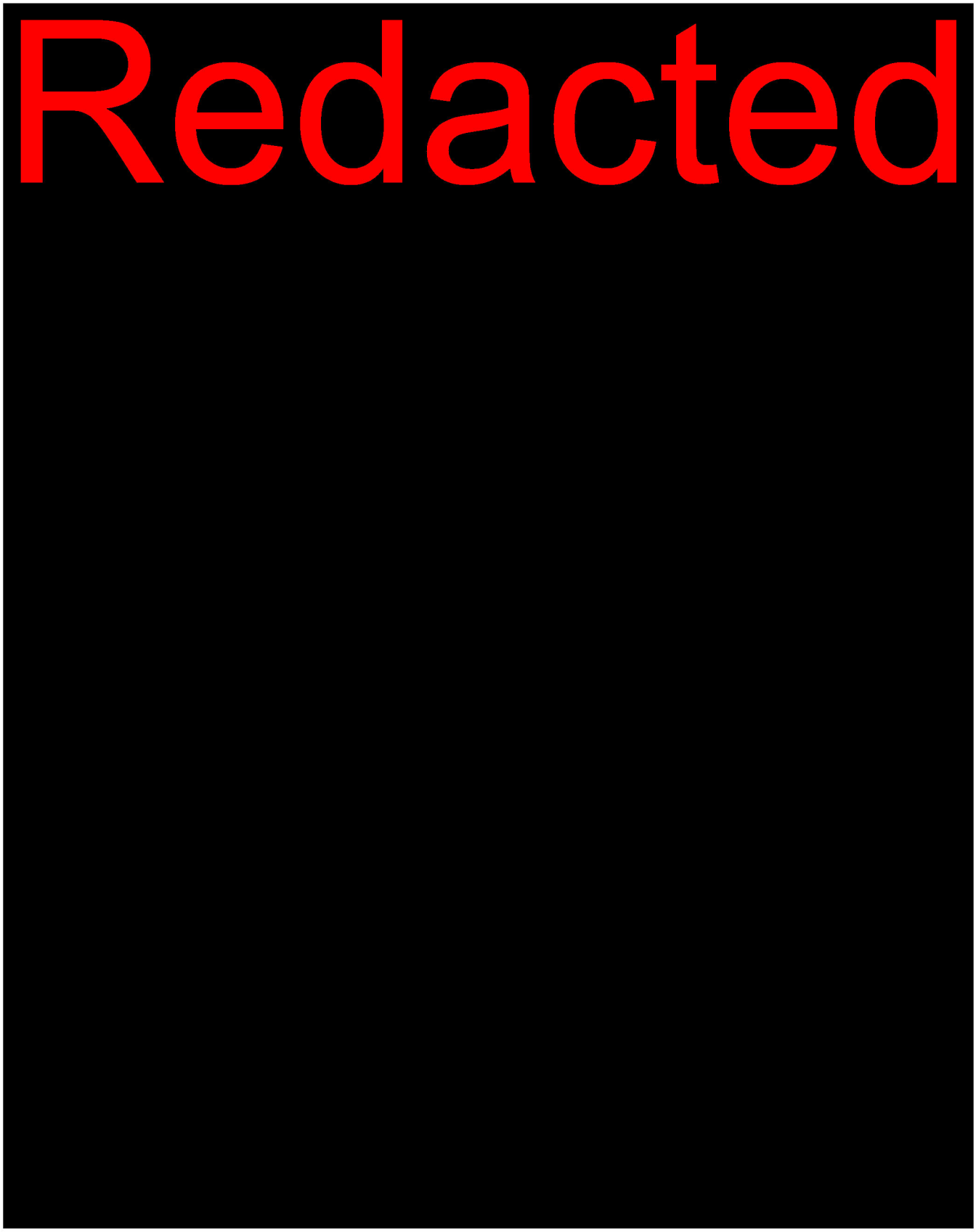


Attachment F- DME Critical Load Information (Next 4 Pages)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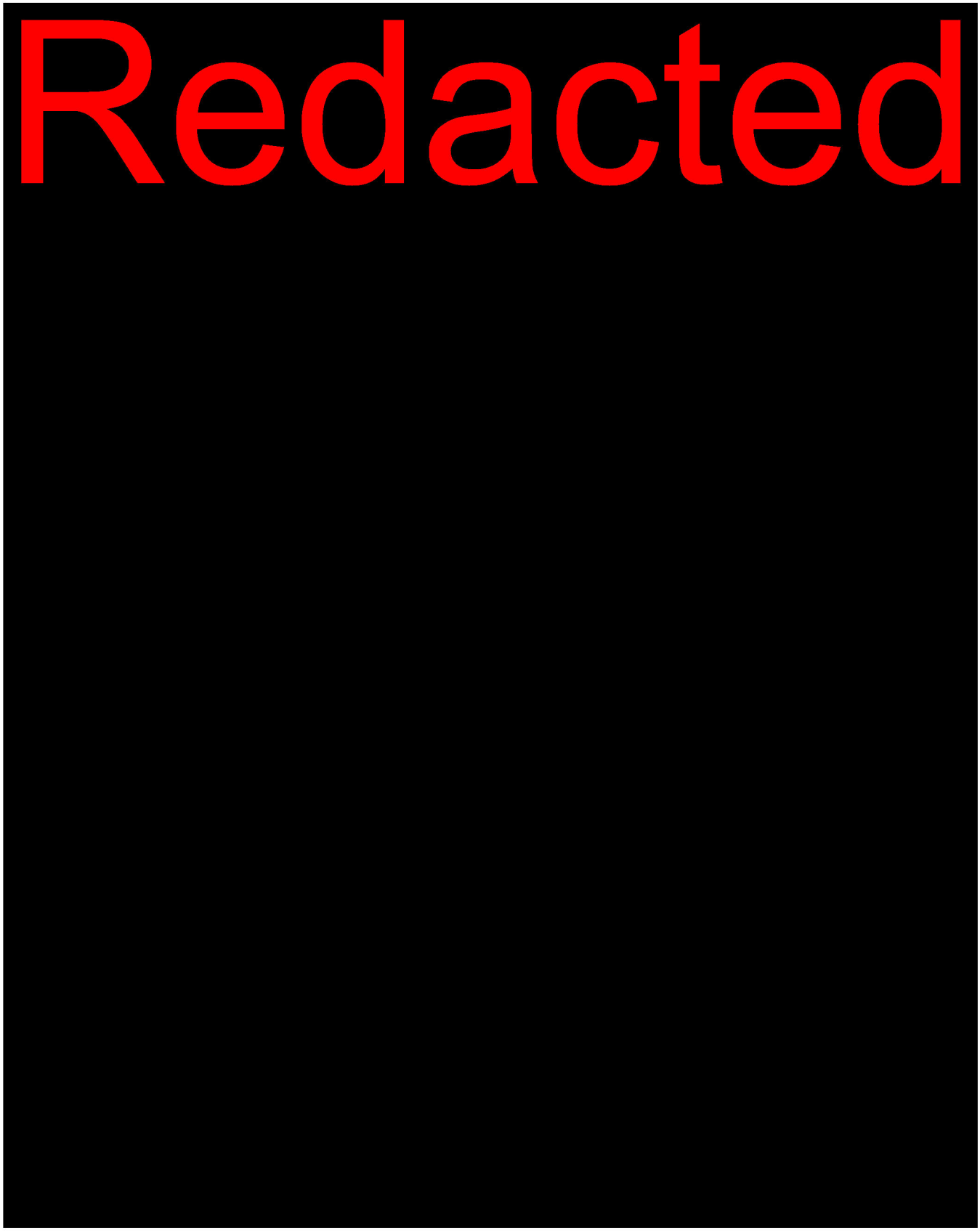
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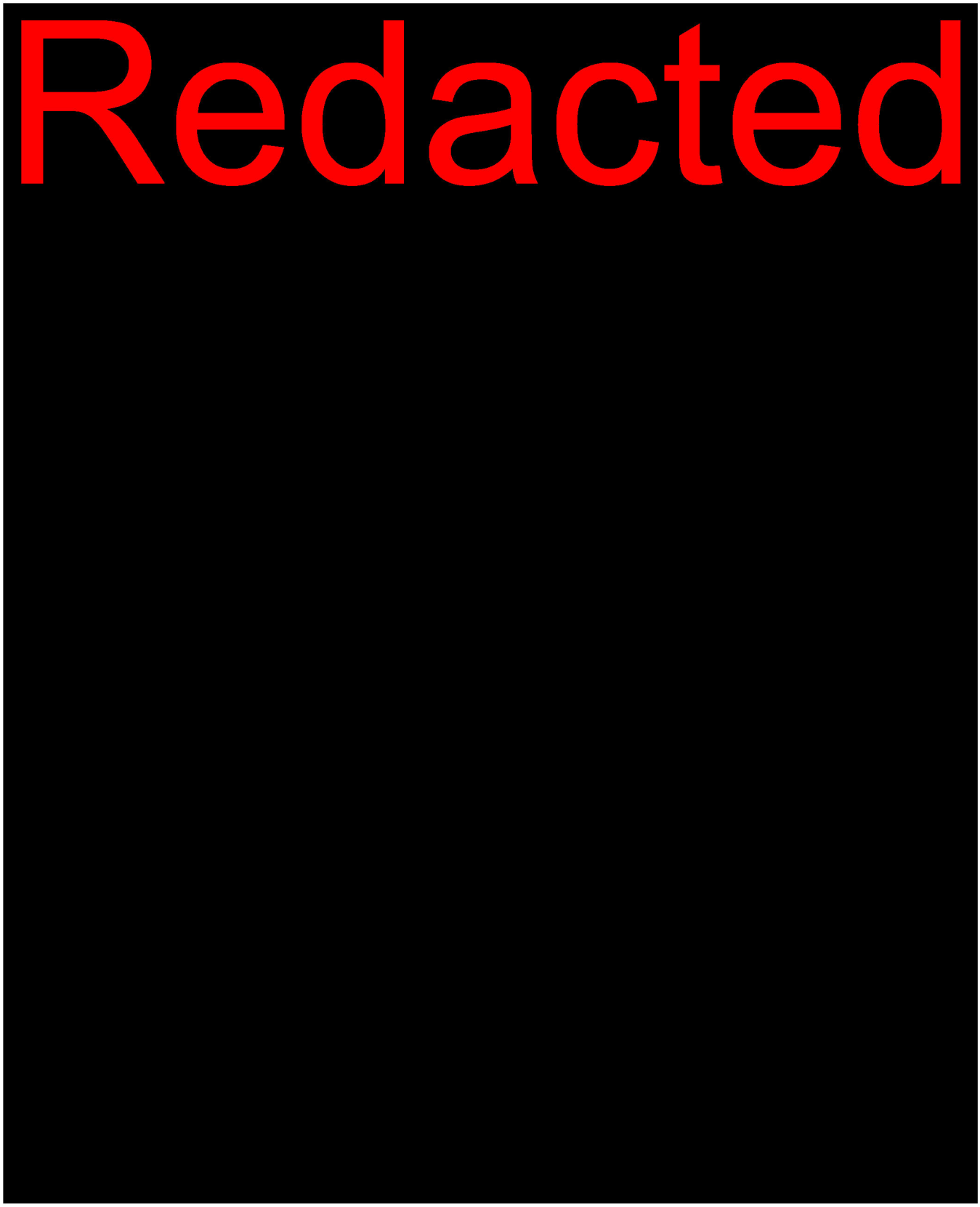
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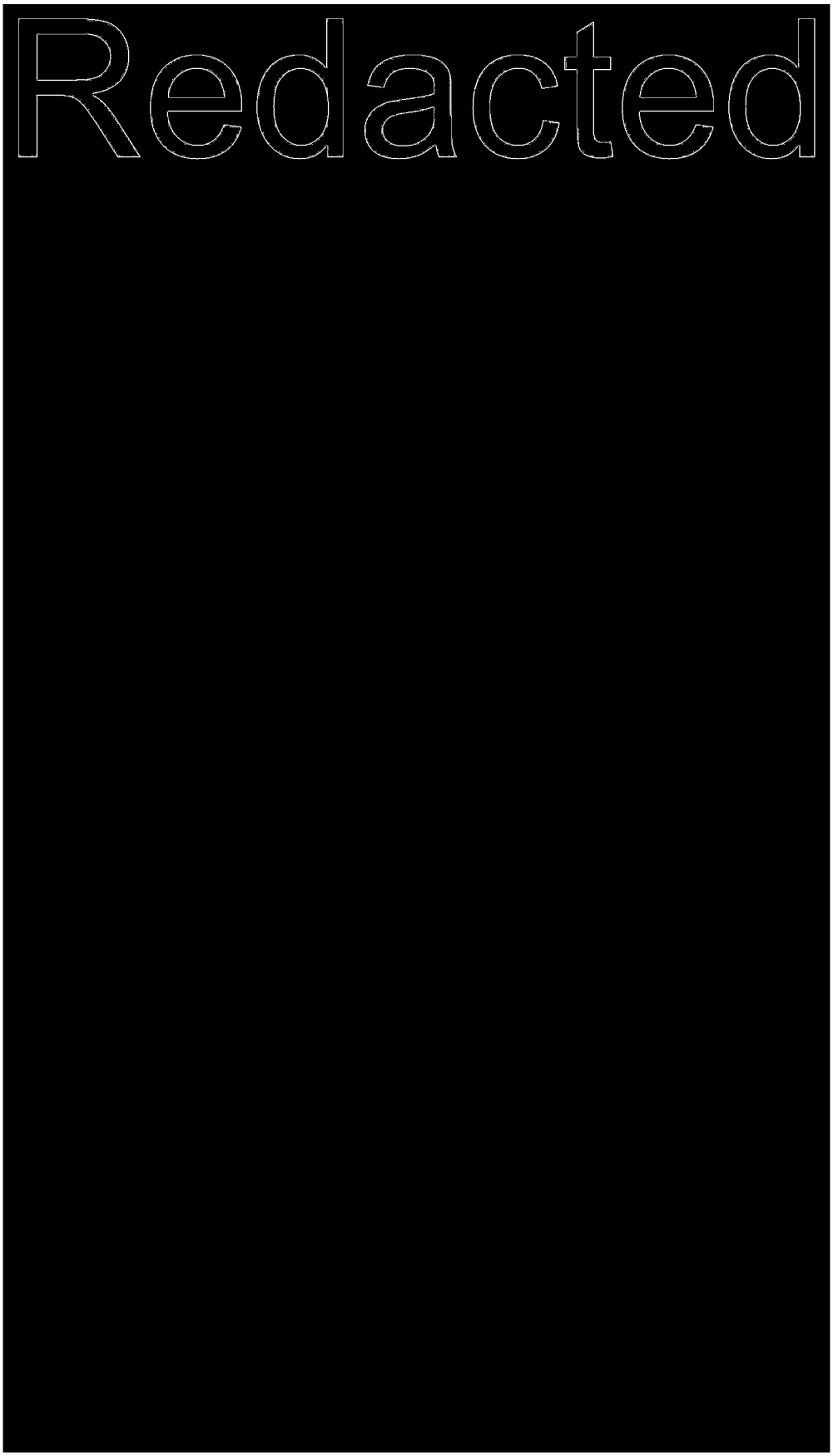
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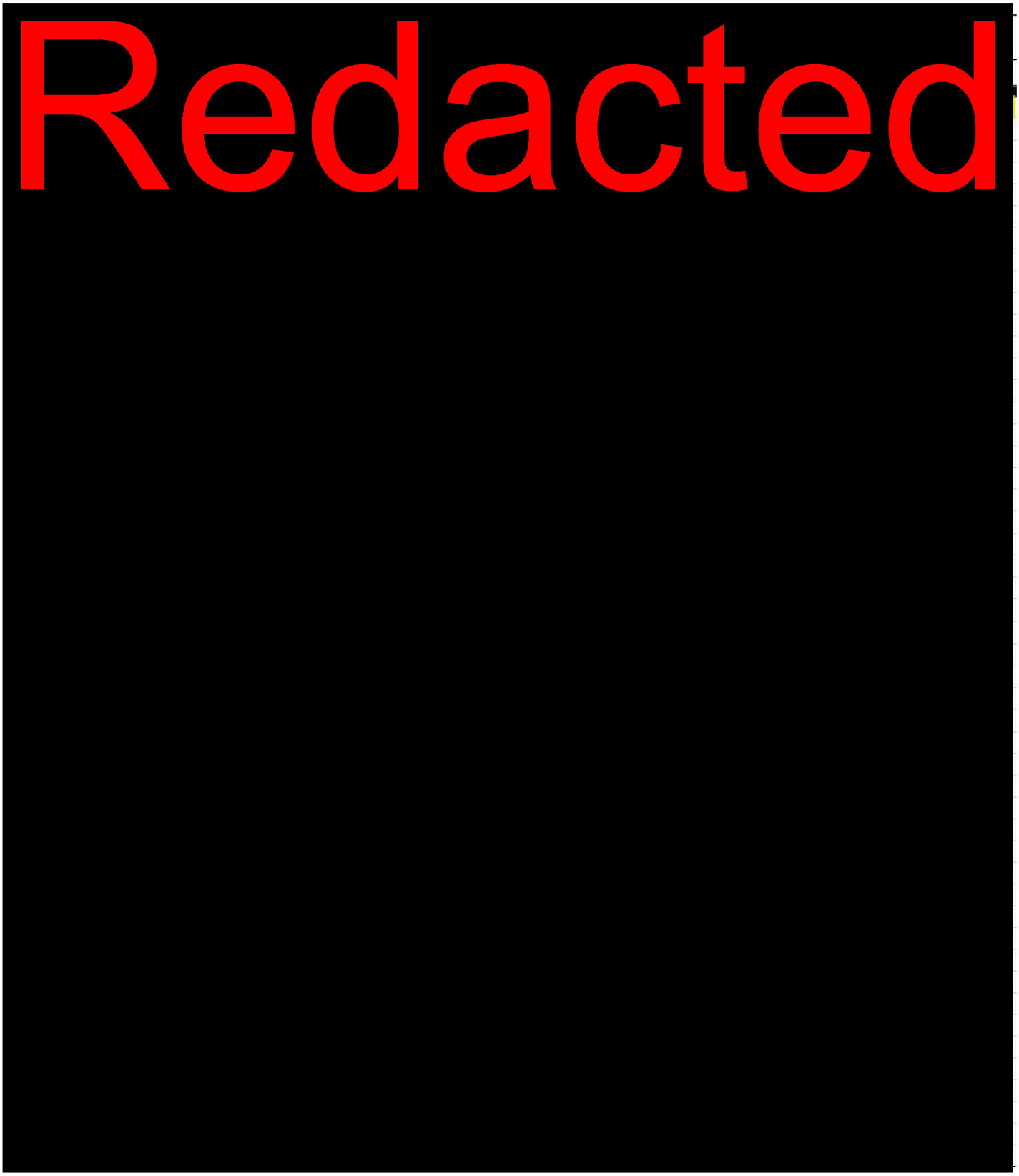
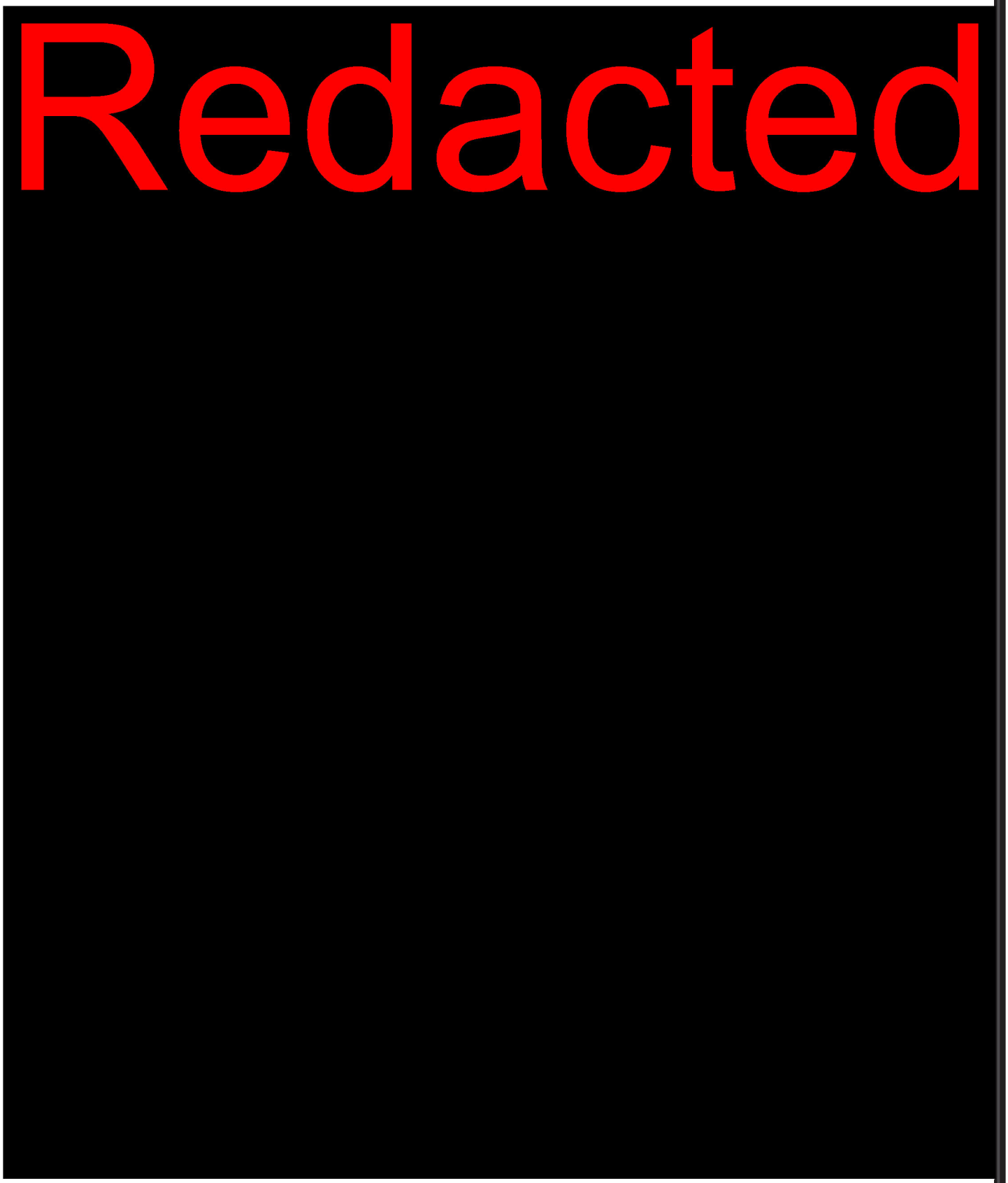
Attachment G – Distribution loads and Feeder Summary

Attachment H – Distribution Load Shed Spreadsheet

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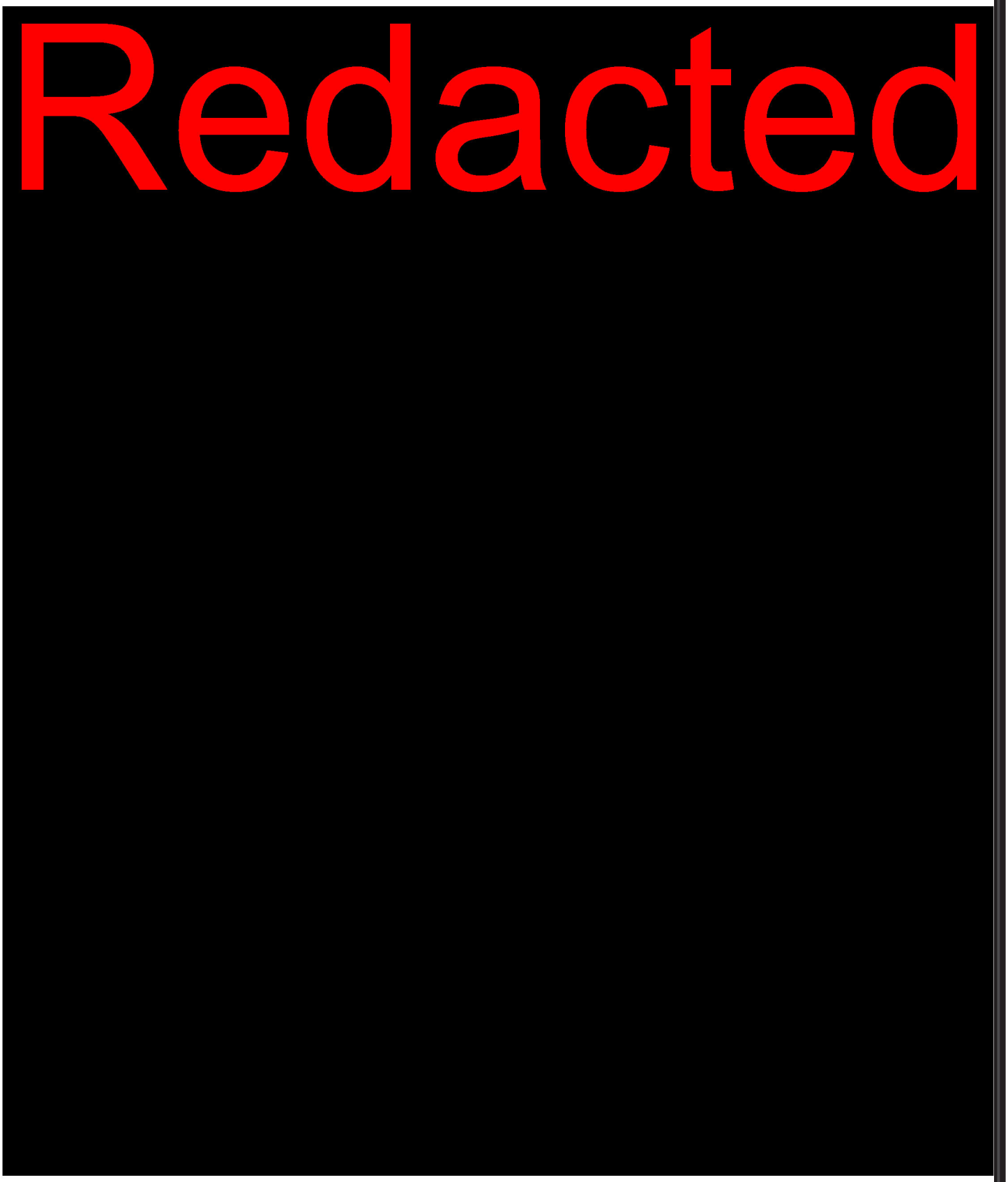
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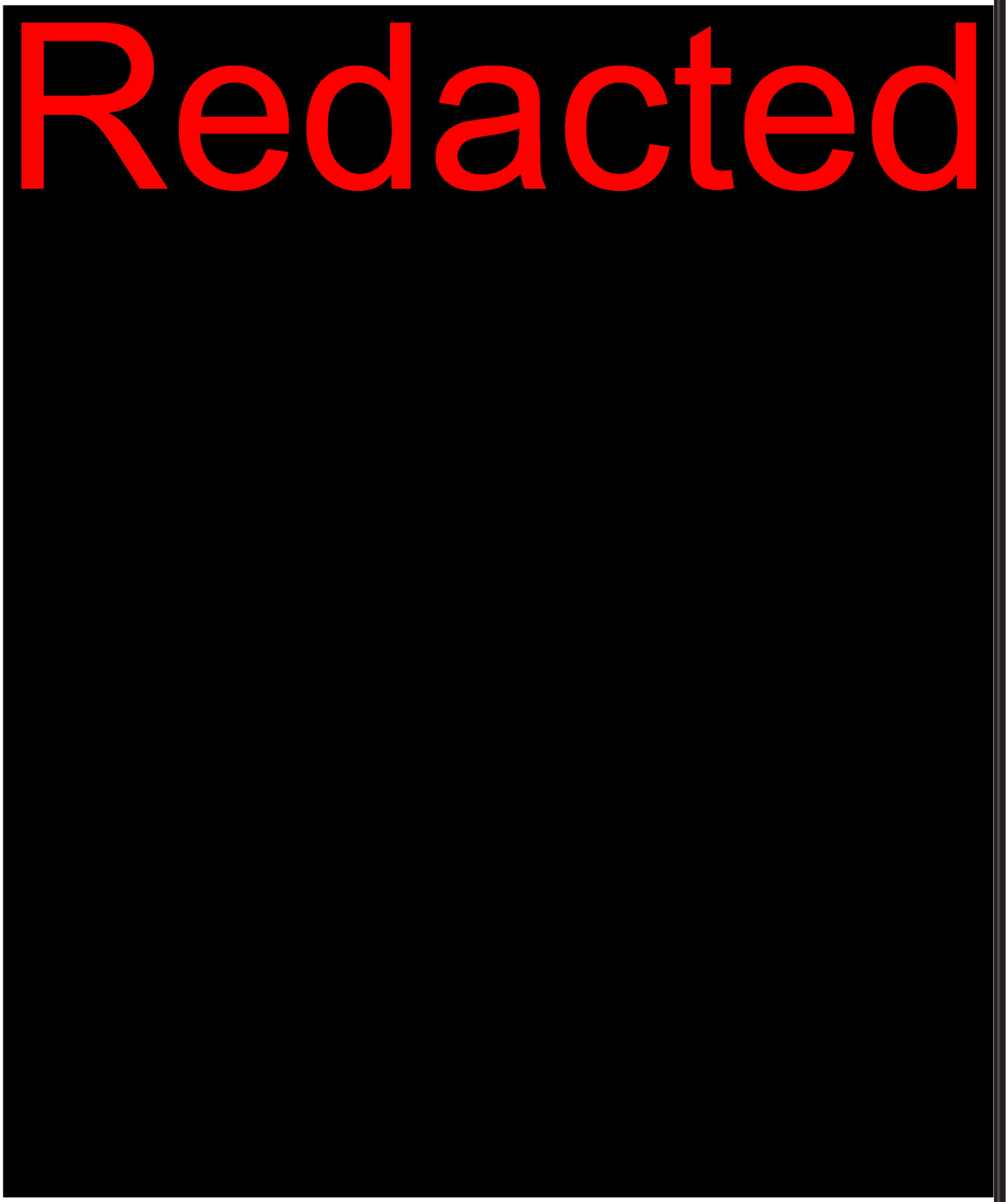
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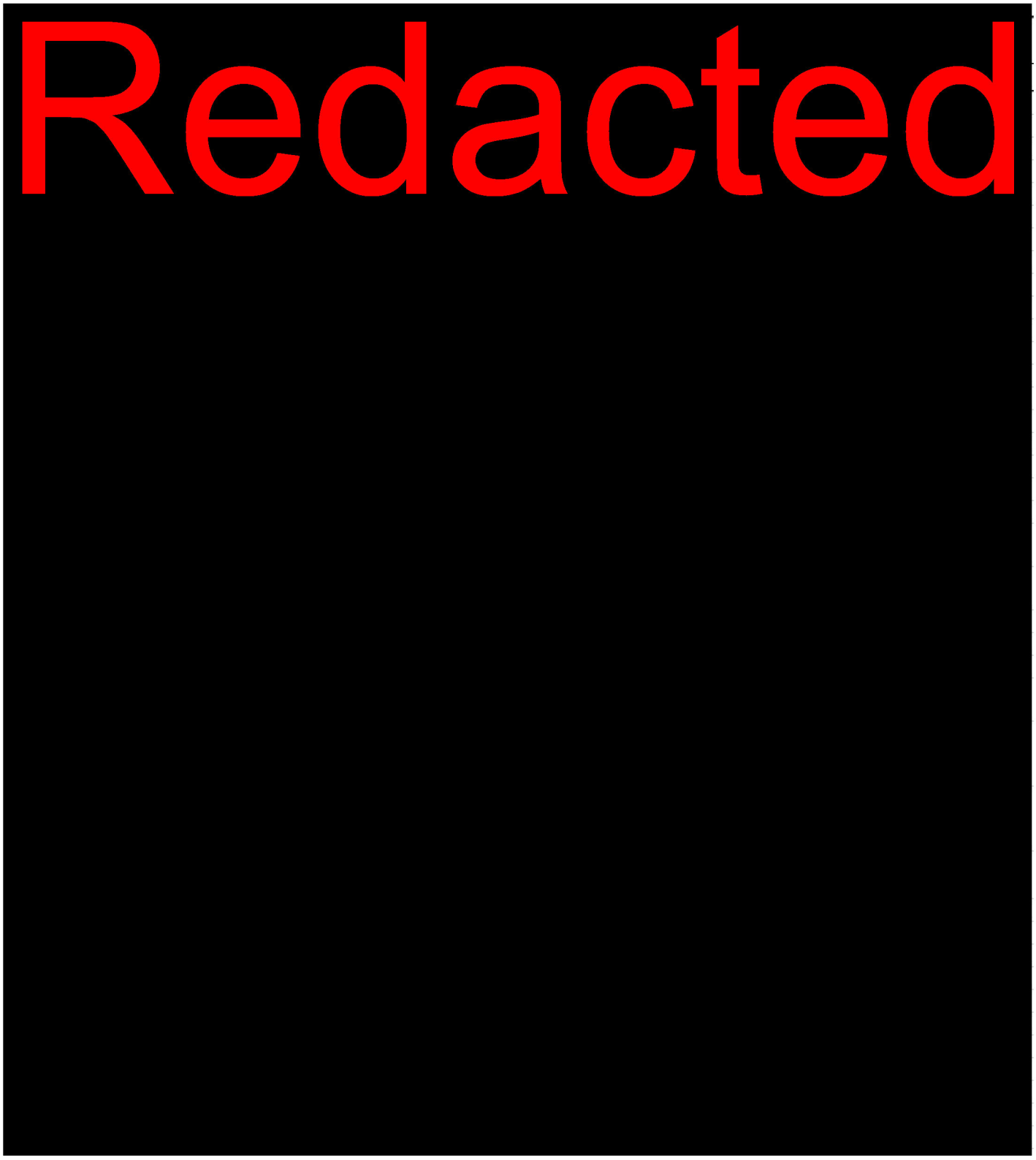
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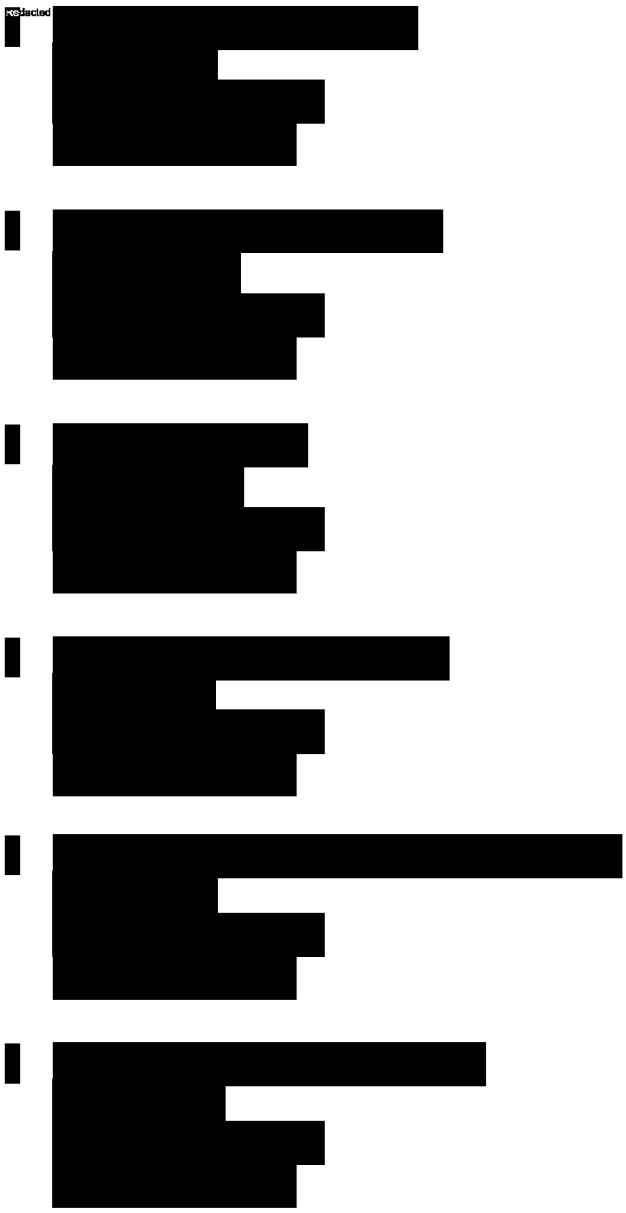
Attachment I – City of Denton (DME) Contacts

City of Denton (DME) Contacts:



Attachment J – Document Control

Document Control

Prepared by:

Jerry Looper, System Operations Manager	Dec 2018

Change History:

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

Version	Description of Change	Date
V 01.00	Initial version	8/10/2012
V 01.01	Replaced load shed table with 2013 (No change)	9/2/2013
V01.02	Replaced load shed table with 2014 and added new or changed feeders	12/2/14
V01-03	Replaced load shed table with 2015 and added new and changes feeders.	12/10/15
V01-04	Replaced load shed table with 2016 and added new and changes feeders.	1/13/17
V01-05	Replaced load shed table with 2016and added new and changes feeders.	11/16/17
V01-06	Replaced load shed table with 2108 and added new and changes feeders.	12/5/18
V01-07	Replaced load shed table with 2109 and added new and changes feeders.	
V02	Added Denton North T2 feeders from permanent map configuration changes and added Critical Loads (Water Production and Carriage House)	3/4/2021
V02.1	Added Critical Load – Lake Dallas Natural Gas Storage and Compression facility	4/28/2021
V02.2	Changed Load Shed Obligation for ERCOT Load Shed Table – Addition of City of Lubbock on 6/1/21	5/18/2021
V02.3	Added Critical Load – City of Denton Animal Shelter	7/23/2021
V02.4	Added Critical Loads – Brookdale Denton South Assisted Living and DaVita Renal Center of North Denton	8/19/2021
V02.5	Added Critical Load – City of Denton Homeless Shelter	9/24/2021
V03	Complete rebuild of Load Shed Plan for 2022	1/1/2022
V03.1	Multiple changes to Load Shed Categories as well as critical loads	3/8/2022

Review Log:

This document shall be reviewed each calendar year.

Reviewed By	Title	Date
Galen Gillum	Compliance Manager	August 2012
Jerry Looper	System Operations Superintendent	January 2013
Jerry Looper	System Operations Superintendent	September 2013
Jerry Looper	System Operations Superintendent	December 2014
Jerry Looper	System Operations Superintendent	December 2015
Jerry Looper	System Operations Superintendent	January 2017
Jerry Looper	System Operations Superintendent	November 2017
Jerry Looper	System Operations Superintendent	December 2018
Cameron Zahn	Outage Coordinator	January 2020
Cameron Zahn	Outage Coordinator	January 2021
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Denton Municipal Electric

PANDEMIC PREPAREDNESS PLAN

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I. Executive Summary

In the event of a local or widespread pandemic preparation is imperative to lessen the impact on our operations and the delivery of electric service to our customers. DME has created this Pandemic Preparedness Plan to promote an effective response throughout the event.

The guidelines outlined in this document are not exhaustive but are intended to provide a high-level overview of our response measures. We will continue to develop processes that are necessary to improve our position before, during and after an event.

The plan provides strategic direction for DME; it does not attempt to catalogue or assign all responsibilities. In case of a pandemic, it is most likely that there will not be sufficient personnel to respond to the event for a sustained period of time. It is incumbent upon DME managers, supervisors and employees to continue the delivery of electric service to our customers during a pandemic event.

II. Introduction and Background

The intent of the plan is to describe a framework for DME to respond to a pandemic event by mitigating the impact to the local economy and social disruption to our customers through the delivery of electric service. This plan is intended to work in concert with other local, state and federal plans that will be implemented during a pandemic to guide various aspects of the response. Overall direction and control will reside with the DME General Manager with coordination and management expertise of Group Managers, Division Managers and supervisors.

The plan outlines the roles and responsibilities required to continue essential business functions required in the delivery of electric service. It communicates the assumptions used for deployment, planning activities required for a response and appropriate measures that will be taken during an event. This plan will be shared, read and understood prior to an event by those individuals within DME who may be involved in the response to a pandemic.

III. Objectives of the Plan

1. Establish comprehensive and credible preparedness and response measures that are exercised on a regular basis.

2. Outline key assumptions for planning and response measures.

3. Coordinate and integrate preparedness and response planning efforts with local, state and federal preparedness plans and systems.

4. Educate employees about a possible pandemic and its possible impacts on DME's business operations.

5. Implement reasonable measures to mitigate the impact of a pandemic on DME and its employees.

6. Develop plans and policies for responding to a pandemic.

7. Promote employee wellness and minimize opportunities for employees to be exposed to the disease while at work.

8. Identify key spokesperson and ensure open communications.

9. Minimize electric service delivery disruptions and subsequent economic loss and societal impact to our customers.

IV. Stages of a Pandemic

The World Health Organization (WHO) has developed a global influenza preparedness plan, which defines the stages of a pandemic, outlines the role of WHO, and makes recommendations for national measures before and during a pandemic. The phases are:

Interpandemic period

Phase 1: No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

Pandemic alert period

Phase 3: Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

Pandemic period

Phase 6: Pandemic: increased and sustained transmission in general population.

Notes

The distinction between phases 1 and 2 is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and other scientific parameters.

The distinction among phases 3, 4, and 5 is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may

include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and other scientific parameters.

Adapted from information provided by the Centers for Disease Control

V. Planning Expectations

The following pandemic planning assumptions are taken from the **Electricity Sector Influenza Pandemic Planning, Preparation and Response Reference Guide,** developed by the North American Electric Reliability Council (NERC):

1. The timing of the outbreak of a pandemic is uncertain and depends on many factors.

2. Once human to human transmission begins, the disease will spread very rapidly around the world within three to eight weeks.

3. Attack rate for the general population is expected to be in the range of 25 percent and these people would be very ill for up to a week.

4. Absentee rates for employees may be in the range of 35 percent for the duration of the pandemic due to illness and other factors such as needing to take care of family members. The pandemic could last for 6 months. Absentee rates will not be uniform across an organization and will be caused by employee illness as well as family care issues, inability to get to work, etc.

5. Persons who contract the virus are not expected to contract it a second time due to a buildup of immunity. However, if the virus mutates, recurrences for the same individual would be possible.

6. Personnel will need to be managed differently to conduct essential business processes and to minimize the spread of the virus.

7. Not enough anti-viral medicines or vaccines will be available for the entire population. There may be none in the early stages and then limited quantities for select populations. Anti-viral medicines, such as Tamiflu, present a variety of difficult issues such as availability, effectiveness against specific virus strains and dosage levels for pre-infection prevention as compared to post-infection treatment.

8. A pandemic will strike in at least two waves, each lasting six to eight weeks. The first wave will peak in three to four weeks. The second wave will be three to six months after the first and will likely be stronger than the first. There may also be a third wave with characteristics similar to the second.

9. It will be important to provide accurate and timely information distribution to employees, labor organizations and government before and during the pandemic.

10. Interdependencies with other segments of the electricity sector

(Generators, transmission operators, distribution providers) and other critical infrastructures (Communications, nuclear, natural gas, petroleum, transportation, emergency services, etc) as well as contractors and suppliers will be severely tested during an influenza pandemic.

Pandemic Phases

The five phases listed below are based on information developed by the World Health Organization (WHO). The phases do not align exactly with the WHO phases as the ones below have been adjusted for use in business continuity planning for the electricity sector. Pandemic response plans should be coordinated first with the appropriate local, state, provincial, and federal government agencies. In the absence of clear guidance, these five phases provide a useful planning framework.

Phase	Consequences for Businesses
Phase 1 Pandemic Alert	Governments, owners, and operators are notified a pandemic is possible and preparedness plans Should be reviewed and updated.
Phase 2 Pre-Pandemic	Localized outbreaks are occurring with human-to-human transmission. Governments and electricity sector entities begin to assign resources, prepare staffing, and implement contingency plans. Begin an information distribution program to promote appropriate responses by employees.
Phase 3 Pandemic	OutbreakGeneral outbreaks across borders and continents. Implement response plans.
Phase 4 Maximum Disruption	High absentee rates would occur (35 percent) and fatalities would begin to impact the workforce. This phase could last for several months.
Phase 5 Prolonged Recovery	Recovery will be slow and the underlying economy will weaken. Altered business conditions will be prevalent for large and small firms. This phase will last for at least three months and possibly up to six months.

VI. Levels of Response

Given that the exact nature of the next pandemic cannot be determined in advance; this plan addresses the threat with three general levels of response: **Seasonal, Epidemic** and **Pandemic.** These levels are defined as follows:

Seasonal
The normal winter-season outbreak of influenza, affecting 5-10% of the population. The strains of influenza seen during a normal season are generally the same as or similar to strains in previous seasons and there exists some pre-existing immunity to the virus. Flu shots also provide some level of protection, in that they provide a level of immunity to commonly-seen strains of the flu.

Epidemic
A widespread outbreak of influenza, affecting 10-20% of the population. Like the seasonal flu, the strains of influenza seen in an epidemic are those previously seen in humans. An epidemic occurs when a group of people with little or no immunity to the strain(s) of influenza common during the season are exposed and become ill. Often seen in schools, where children, by virtue of young age, have no immunity to a common strain of flu. The rapid spread through any segments of the population can raise the risk for other segments (e.g. if a majority of children in a school come down with a particular strain of flu, then a large number of households are exposed to the flu, increasing its impact on adults).

Pandemic
A worldwide outbreak of influenza, affecting +20% of the population. As defined above, a pandemic occurs when a strain of influenza, previously unknown in humans, develops the ability to infect humans and spread from person to person.

Recommended actions are given for each level of flu outbreak. The response for each successive level would include the action items for prior levels (e.g. the response for an epidemic would include all of the action items for seasonal flu, as well).

VII. Preparation & Response Efforts

The following section outlines actions to be taken and responsibility for ensuring they are executed according to the severity of the event and availability of resources. All actions should be continued as the situation is scaled up unless they are made obsolete or rendered ineffective.

DME has a responsibility to our customers and the community to deliver electric service. In order to satisfy this obligation, DME heavily relies on its employees. Listed below are guidelines of expectations that everyone at DME must recognize.

1. DME is responsible to deliver electric service during a pandemic.

2. Employees are expected to report to work during a pandemic if physically able.

3. DME expects employees to prepare themselves and their families to avoid significant impacts due to the emergency.

4. Employees are expected to contact their supervisor if they are experiencing any symptoms or have someone in their immediate family that is experiencing symptoms.

5. Employees are expected to follow the directions of their supervisor, including immediately departing from their work location and contacting their physician.

6. DME expects employees to stay away from work if diagnosed with any illness related to the pandemic.

7. Employees are expected to maintain contact with their supervisor if permitted to work from home.

8. Employees are expected to report to work immediately after being free from symptoms.

9. Supervisors must report and isolate work areas that may have been contaminated and initiate cleaning measures.

VIII. Continuity of Essential Business Functions

Business Continuity
Managers will examine their essential business functions and develop a specific plan with processes that provides basic levels of service with the following considerations:

1 Are employees cross-trained in job functions related to critical business processes?

2 Could we continue to perform critical business processes with a 40-50% employee absentee rate?

3 Which employees' job functions could be performed from home?

4 Which of those employees are equipped to work from home (home computer, Internet access, etc.)?

5 If DME, by nature of its critical service provider status, were to be provided with a limited number of doses of vaccine, who would they be given to?

These plans are included in the appendices section.

IX. Communications and Media Relations

This section describes the steps to be taken internally to DME in the event of a pandemic.

1. Communicate early and regularly to staff and include recommendations to minimize potential transfer of infectious agents within company facilities so that these measures can be practiced and internalized.

2. Collaborate with local public health unit on the enumeration of antiviral shot recipients for staff performing critical functions in the event of an event.

3. Provide regular communication to all staff of the latest medical advisories and recommend adherence to all actions suggested.

4. Provide regular communication to all staff on any additional pandemic specific requirements or information.

DME will designate a spokesperson as a liaison for media and other releases to ensure a timely, accurate exchange of information.