3. REVIEW previous summer event issues that could affect plant operation and reliability.

4. IF any maintenance work has been done, THEN VERIFY the following:

   a. Work has been completed.

   b. Lock Out/Tag Out (LO/TO) has been cleared.

   c. Areas where work was performed have been cleared of tools, rags, etc.

   d. Equipment, circuits, sensors, etc. are ready for operation.

6.0 SUMMER CHECKS

1. **PERFORM** a visual inspection of the plant HVAC systems.		
2. **VERIFY** correct set points and operation of plant HVAC systems.		
3. **VERIFY** correct operation of any compartment exhaust dampers or fans.		
4. **PERFORM** verification and visual inspection of line instrumentation systems, instrument sensing lines and control valves: • Critical Systems o Transmission system capable of transmitting power generated from the facility. o Telemetering indicating generation to the transmission operator. o Natural gas supply. o Water supply to facility o Demineralizer o Plant Air System o Hydraulic System o Ammonia System o Nox Water System o Lube Oil System		
5. **PERFORM** an inspection of the inlet filter system, checking for wear and/or damage.		
6. **VERIFY** Mee Fog System operational.		
7. **VERIFY** correct operation of the compressed air dryer and receiver drains. a. **EVALUATE** Air Dryer b. **EVALUATE** Compressed Air Dew Point. Dew Point _____		
8. **VERIFY** that Air Compressor, receiver, and air dryer solenoid blowdown valves are operating properly.		
9. **VERIFY** operation of CT Sprint Skid system.		
10. **VERIFY** operation of all Transformer cooling fans.		
11. **PERFORM** Emergency Hot Weather Drill once per season.		
12. **VERIFY** Extreme Hot Weather inventory is accurate.		

• (Rent) Portable AC units • (2) Portable Fans • (4) Electrical Cords		

7.0 HOT WEATHER FORECAST CHECKS

1.	SCHEDULE 24-hour coverage.		
2.	VERIFY correct set points and operations of plant HVAC systems.		
3.	VERIFY correct operations of any compartment exhaust dampers or fans.		
4.	VERIFY correct set points and operation of Fin Fan Coolers.		
5.	VERIFY Mee Fog System operational.		
6.	VERIFY operation of portable AC units and fans.		
7.	VERIFY operation of CT Sprint Skid system.		
8.	VERIFY operation of all Transformer cooling fans.		

8.0 HOT WEATHER DRILL

1. VERIFY correct set points and operations of plant HVAC systems.		
2. VERIFY correct operations of any compartment exhaust dampers or fans.		
3. VERIFY correct set points and operation of plant cooling water system.		
4. VERIFY Mee Fog System operational.		
5. VERIFY operation of portable AC units and fans.		
6. VERIFY operation of all Transformer cooling fans.		
7. LOG attendees that conducted training. Date/Time/Attendees		

Summer Readiness Drill Attendance

Attendee Name	Date	Time

Attachment F – VP2-OP-108 – Hurricane Preparedness

NAES	Operating Procedure		Victoria Port Power II
	Victoria Port Power II		
	VP2-OP-108	Hurricane Preparedness	
	Rev: R0	Rev Date: 04/04/2022	

TABLE OF CONTENTS

1.0 PURPOSE AND SCOPE

1.1 Purpose

The purpose of this procedure is to establish action steps which will ensure the safety of employees; minimize damage to plant equipment; and maintain plant production at a level related to weather conditions.

1.2 Scope

This procedure establishes plant policy for actions during periods of severe weather during commercial operations. The plant is committed to being adequately staffed and operational through all weather conditions. Guidelines are developed to protect the employees, while making every attempt to continue operating the plant. It is understood that no employee is to be placed in any situation that has potential to cause injury or harm.

2.0 OBJECTIVE

The National Weather Service monitors the formation, intensity, and movement of tropical depressions, upgrades their status as the storm intensity increases, and issues warnings for the area of the storm and for locations where the storm is expected to hit land.

Our objective is to eliminate personnel injury and plant equipment damage while maintaining needed generation, by securing any loose objects which could be picked up by the wind and turned into hurling projectiles, limiting structural damage and minimizing personnel exposure to these conditions by remaining indoors in as safe a place as possible during the storm.

The National Weather Service's ability to track and predict the path and time of impact of a hurricane enables implementation of the emergency response plan in time increments.

3.0 RESPONSIBILITY

Plant Manager, O&M Techs, or other designees are responsible for maintaining the Hurricane Watch by tracking a hurricane or storm and its location and strength.

When a hurricane enters the Gulf of Mexico, the following personnel will report for a called meeting via conference call:

- Remote Operating Center
- NAES Operations Director (OD)
- Plant Manager
- O&M Supervisor
- O&M Tech

4.0 INITIATION OF HURRICANE PROCEDURES

In accordance with Local Emergency Planning Committees' recommendations, procedures will be based on the storm's category +1. Therefore, a tropical storm would be planned as a Category 1 hurricane, a Category 1 hurricane as a Category 2 hurricane and so on. The National Weather Service categorizes hurricanes by intensity on a scale of 1 to 5, which includes:

Hurricane Intensity Category	Wind Speed	Tide Surge
Category I	74-95 mph	4-5 ft.
Category II	96-110 mph	6-8 ft.
Category III	111-130 mph	9-12 ft.
Category IV	131-155 mph	13-18 ft.
Category V	156+ mph	19+ ft.

Activities involved within the plan are related by expected land fall of the hurricane at or near the plant site, and designated by a "Phase Code" as follows:

Phase 1	96-72 Hours Away
Phase 2	72-36 Hours Away
Phase 3	24 Hours Away
Phase 4	Authorization to Return

NOTE

Established action should be carried out no later than the time indicated, but can be accomplished prior to that time frame if conditions are warranted.

5.0 PHASE 0 – JUNE PREPARATIONS

The topic of the monthly safety meeting in June of each year shall be Hurricane Preparedness. An annual review of this procedure should take place at this meeting. Any proposed changes should be discussed at this time.

- **DISPOSE** of waste oil in oily water separators to prevent overflow in the event of heavy rains.
- During the first week of June, **CREATE** backup copies of all DCS configurations
    - **SEND** backup copies to corporate office.

- **CHECK** Emergency equipment inventory;
    - **REPLENISH** Emergency supplies (i.e. batteries, flashlights, cots, sleeping bags, etc.)
- **ORDER** Plastic packing wrap for electrical breakers.
- **ORDER** Packing Boxes necessary to contain items to be removed from site.
- **CONTACT** area LEPC or Chamber of Commerce for latest local evacuation route maps for distribution to employees.

6.0 PHASE 1 – STORM WATCH INITIATED

Based on available information concerning the size, intensity, rate and direction of travel of the disturbance, Phase I of the Hurricane Procedure should be activated as soon as the storm enters the Gulf of Mexico, but not less than 96 hours prior to the projected landfall. Phase I should be completed no less than 72 hours prior to the arrival of gale force winds (55 mph). Phase I includes daily meetings, taking inventory of supplies, and testing equipment.

- **VERIFY** required supplies are in stock
- **VERIFY** all equipment which is not under planned or unplanned maintenance is operable.
- **ESTABLISH** a plan for work requirements to prepare for entering Phase II.
- **DISTRIBUTE** an action sequence for hurricane preparedness upon activation of Phase I.
- Management **CONTACT** the following to discuss timing and preparations for shutting down the plant and evacuation of the site.
    - Owners
    - Asset Manager
    - Shell
    - CenterPoint
- **SCHEDULE** Initiation of shutdown by Plant Manager accordingly.
    - Timing for the evacuation of the site will be determined by the Plant Manager in conjunction with Port Authority of Houston

- Shutdown should be no later than the time that an evacuation order of the area is issued by Emergency Management Officials.

- At Plant Manager's discretion, **EVACUATE** non-essential personnel evacuated.
- **ESTABLISH** A central communications contact person / phone number for employees to call following evacuation.
- **ENSURE** All employees given central communications contact information prior to evacuation.
- **FILL** all tanks in the plant.
- **CANCEL AND POSTPONE** all planned visitors.
- **UNPLUG** all non-essential electrical devices.
- **SCHEDULE** Daily meeting for all onsite personnel in the PDC.
- Any personnel not at the site need to be notified and placed on alert.
- All supplies inventoried and equipment checked.
- Check all communication equipment.
- Check gas and diesel supplies (specifically in/for generators).

7.0 PHASE II – SITE PREPARATION FOR HURRICANE CONDITIONS

Phase II should be started not less than 72 hours in advance of the anticipated arrival of gale force winds (55 mph) and completed 36 hours prior to the arrival of gale force winds.

Phase II includes the preparation of the plant to meet hurricane conditions and the purchasing, collection, and organization of all equipment and supplies. The Victoria County Local Emergency Planning Commission (LEPC) should be contacted to find out when they will hold their hurricane planning meeting. Someone from the plant should attend this meeting if at all possible.

LEPC Contacts:

PHONE: (361) 575-4558

- CONDUCT daily conference call between onsite personnel and Remote Operating Center to discuss
    - the status of preparations

- location of the hurricane,
- expected arrival date
- anticipated location of landfall.

- **SECURE** plant for gale force winds.
- **BOARD** Windows
- **SECURE** any and all loose objects (trash cans, etc.) should be taken inside if possible or secured.
- **PERFORM** the site- specific shutdown layup checklist (See Appendix A to this procedure).
- **UPDATE** important backup records, catalog and store all records that will be evacuated from the plant.
- Plant Manager **MAY DESIGNATE** employees to bring certain information with them to keep secure during evacuation.
- **INSPECT** all fire protection equipment.

8.0 PHASE III – SHUTDOWN REMAINING EQUIPMENT

Phase III should be started not less than 24 hours prior to the anticipated arrival of the storm and should be completed within that 24-hour period.

- **SECURE** CenterPoint back feed to the plant
- **EVACUATE** the plant,
- **ENSURE** checklist is complete.
- Upon evacuation, the O&M Tech **OBTAIN AND SECURE;**
  - SWPP Book
  - LOTO Book
  - Operations Logbook.

9.0 PHASE IV- RESTORATION

Following the hurricane, once authorization to return to the area has been received from Local Emergency Management;

- all essential personnel **RETURN** to the site to assess damages.
- All non-essential personnel **INFORM** Plant Manager or central contact person daily
    - current location
    - a contact number
    - when to report to the site.
- Once damages are assessed, **CONTACT AND BRIEF** Operations Director / Asset Manager.
- All employees on site **INSPECT** damages **AND PRIORITIZE** tasks to be done.
- **MAINTAIN** accurate report of all damage and repairs made
- **DOCUMENT** via photographs all damages incurred by the plant.
- Before main electrical switch is closed, O&M Tech **INSPECT** electrical system;
    - **DETECT AND REPAIR** damage
    - **OBTAIN** approval of the Transmission Operator and Plant Manager or designee.
- COMPLETE Building damage inspection before occupancy is allowed
- After inspection for broken valves, lines, etc., **OPEN** main gas valve.

10.0 REFERENCES

2021 Emergency Operations Plan (PUCT Rule §25.53: Electric Service Emergency Operations Plans)

NAES SMP-02 Emergency Response

11.0 REVISION HISTORY

Rev.	Date	Description of Revision	By
R0	03/22/2022	Updated format and implementation with NAES Corporation	

Appendix A: Plant Event Layup Checklist

	Initial	Date
1. **NOTIFY** AEP prior to shut down.		
2. **SHUTDOWN** gas turbines.		

NOTE:
Units will be shut down in an order determined by the O&M Supervisor or designee.

3. **FILL** Demin tank		
4. **SHUTDOWN** Demin plant.		
5. **SECURE** plant water systems.		
a. **CLOSE** raw water supply valve.		
6. **SECURE** Demin Tank.		
a. **CLOSE** inlet valve.		
b. **CLOSE** outlet valve.		
7. **SECURE** natural gas pipeline.		
a. **CLOSE** main gas block valve.		
b. **CLOSE** main gas bypass valve.		
8. **SECURE** ammonia system.		
a. **ENSURE** ammonia tank filled (if needed).		
b. **CLOSE** tank valves.		
c. **CLOSE** loading valves.		

9. **SECURE** chemicals.

    a. **FILL** totes.

    b. **SHUTDOWN** chemical pumps.

    c. **SECURE** totes.

NOTE:

Totes should be isolated and tied down or brought inside a building or conex if possible.

10. **ENSURE** all lose objects are moved inside or strapped down.

    a. Oil drums

    b. Trash cans

    c. Gas cylinders

11. **PERFORM** any other isolations as necessary.

12. **CLOSE** all doors, board windows and ensure conex's are secure.

13. **SECURE** plant electrical system.

14. **WHEN** plant is completely shut down, **OPEN** all DC power breakers.

NAES	**Pandemic Preparedness and Response Plan** **Safety Manual Program (SMP)**

Introduction

Purpose:

The purpose of this procedure is to provide a coordinated and comprehensive response to a pandemic event in order to help ensure continuation of operations.

The procedure describes potential pandemic threats, identifies and prioritizes the critical operations and business functions of this facility, and provides appropriate response guidelines.

The information in this Plan is based on generally accepted assumptions about the development, outbreak, and expected progress of an influenza pandemic. Site-specific information required for implementing this Plan (contact lists, recovery details, etc.) is provided in Appendices A through G at the end of this Procedure. Control and survival of a pandemic will depend on the ability of thoughtful individuals to conduct a well-planned and well-organized response. The ultimate objective of this Plan is to prepare those individuals for success.

Scope:

All NAES Employees, All Site Personnel

References

Terms and Definitions:

Term:	Definition:
RTO (Recovery Time Objective)	The period of time within which systems, applications, or functions must be recovered after an outage.
WRT (Work Recovery Time)	The period of time needed to complete the disrupted work on a recovered/repaired resource in order to return it to normal operational status.

Other References:

Center for Infectious Disease Research and Policy, University of Minnesota
North American Electric Reliability Council
United States Center for Disease Control
U.S. Government Public Information Site
World Health Organization Site

DHS site (U.S.)
Public Health Agency of Canada

Responsibilities

① PLANT STAFF

- Brainstorm critical business functions and priorities
- Determine locally appropriate mitigations
- Prepare and test draft Pandemic Response Plans
- Assist employees with family care plans
- Manage work continuation if a pandemic strikes
- If NAES corporate management is not available, plant managers shall take control

② CORPORATE

Plan Development

- Recognize threat and authorize a planning and response effort
- Identify critical departments needing response plans
- Require preparation of approved Pandemic Response Plans
- Provide schedule for preparation of Plans
- Request draft policy changes needed for pandemic management
- Adjust strategy and response level as needed

Pandemic Management Program Team Inputs

- Pandemic threat and impact information
- Program coordination
- Initiation criteria
- Threat monitoring updates
- Department pandemic management plan templates and coaching
- Coordination with support departments (Human Resources, Information Services, etc.)

NAES Headquarters Inputs

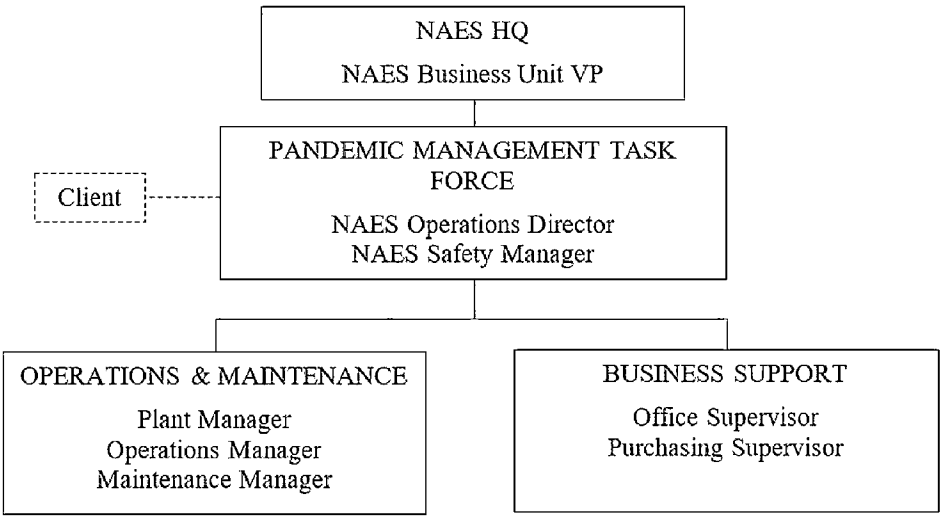
- General pandemic information (issues, impacts, mitigation strategies, pandemic management, suggested plan outline)
- Guidance and coaching
- Plan templates
- Family care outline and websites

③ EMPLOYEE

- Perform critical department work if a pandemic strikes
- If management is not available, senior personnel will provide leadership
- Remain individually healthy by following guidelines
- Review family care outlines and websites; prepare a family response plan and discuss with family members
- Stockpile essential supplies

④ PLANNING RESPONSIBILITIES

The diagram below is the organization chart for the NAES Pandemic Management Program Team (PMPT) for this facility. The PMPT task force is responsible for the preparation, the continuing readiness, and (if needed) the implementation of this Plan.



Policy

① PANDEMIC CHARACTERISTICS

A. Timing and severity of the outbreak of a pandemic are uncertain and may not be immediately recognized. The most feared pandemic strains (such as SARS, COVID-19, avian influenza or "bird flu", H5N1) exhibit the following characteristics:

A.1. Able to cause severe disease in humans.

A.2. Global human population has no pre-existing immunity.

A.3. Able to spread rapidly through human-to-human contact.

B. Once human to human transmission begins, the disease will spread very rapidly around the world within three to eight weeks. It is likely that 20 to 30 percent of global population will contract influenza during the first wave and will become very ill for several weeks. Additional waves will follow over one to two weeks.

C. Absentee rates for employees may be in the range of 25 to 60 percent for the duration of the pandemic, due to employee illness and to other factors such as caring for family members. Absentee rates will normally vary across an organization based on location and isolation.

D. With the expected high percentage of ill people, the existing healthcare system will be overwhelmed. Most government and health organizations will not have sufficient stockpiles of anti-viral agents or vaccines to treat those who are exposed or who will become ill if a pandemic occurs in the next one to two years.

E. Persons who contract the virus are not expected to contract it a second time due to a buildup of personal immunity. However, if the virus mutates, recurrences for the same individuals could be possible.

F. Personnel management will need to be modified to continue essential plant operations and business processes, while minimizing the spread of the virus.

G. The organizational response will need to include the distribution of accurate and timely information to employees, families, and customers.

H. Because of the percentage of affected people around the world, global trade and the global economy will be significantly impacted by the pandemic, limiting the supplies of food and manufactured goods.

I. Other cross dependencies with other segments of the utility sector (generators, transmission operators, distribution providers) and other critical infrastructure (communications, nuclear, natural gas, petroleum, transportation, emergency services, etc.) as well as contractors and suppliers will be severely tested during influenza pandemic.

② PANDEMIC PHASES

Information developed by the World Health Organization (WHO) defines five phases of a possible pandemic as listed below. These five phases provide a useful framework for pandemic response planning.

A. **Phase 1 - Pandemic Alert**

Governments, owners, and operators are notified that a pandemic is possible and preparedness plans should be reviewed and updated.

B. **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.

C. **Phase 3 - Pandemic Outbreak**

General outbreaks across borders and continents. Organizations implement response plans.

D. **Phase 4 - Maximum Disruption**

High absentee rates occur, and fatalities begin to impact the workforce. This phase could last for several months.

E. **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.

③ PANDEMIC RESPONSE PLAN DEVELOPMENT

This section will provide guidelines for corporate departmental planning to meet the challenges of an influenza pandemic. Various charts and tables (see Appendices A, B and C for details) are provided for planners to use during these assessment processes. Some limited information (typically applicable to power plant operations) has been included in these tables for demonstration purposes, but each organization shall develop a site-specific Plan by filling local information into the various assessment tables provided in this Section. Any text that is highlighted in yellow in these tables has been inserted only as an example of a possible data entry.

A. **Business Processes Assessment**

In planning for a potential Pandemic, it is important to identify the major business processes in the organization. It is also important to determine the critical inputs that are needed to accomplish those processes. Other departments in the company may depend on some of your organization's output to do their work. The most important outputs should also be defined.

As you identify critical inputs and outputs, consult with upstream and downstream organizations. They may have priorities that are different from your own and negotiation with them may be necessary. Critical information should include Contact Lists, Vendor Lists, etc. To set the Priority Ranking, #1 is for most important, and #5 is for least. For example, the critical business functions needed for the business to survive should be in the #1 category.

A "Major Business Functions" assessment chart is recommended as a starting point for the NAES Pandemic Management process. An example of this table can be found at Table 1. at the end of this procedure. In addition, several follow-up assessment charts are also available at the end of this document.

B. **Pandemic Risks Assessment**

Once the major business processes have been identified, it will be important to determine what the largest risks to those functions are. What problems would be caused by loss of key staff inside or outside of the company (loss of key department personnel, loss of vendors, bankruptcy of a large customer, stock market crash, late or no payments, inability to communicate with other businesses, failure of service providers, etc. Once these largest risks are determined, appropriate mitigation strategies can be established. These risks should be detailed in a table similar to Table 2. located at the end of this document.

C. **Loss of Key Personnel**

C.1. For Pandemic Only

This case differs from the normal Business Continuity case because all the supporting departments and vendors that the department might call upon in an emergency will also be having a personnel shortage. This means many more vendors will be needed, more work must be cancelled or postponed, and more drastic measures to protect the remaining employees must be taken. Develop a table detailing the recovery strategies similar to the examples in Table 3. at the end of this document.

C.2. For Influenza Pandemic with Emergency Succession

It is critical to identify key personnel doing critical work for each major business function. These key persons are those personnel without whom, the Major Business Function could not be done. This might be a senior department employee, group leader, or supervisor.

Create a table similar to the example Table 4. At the end of this document naming the current key personnel, enter the name(s) of the person(s) that could take over the work in an emergency where the current key person is not available. In other words, Table 4. is an emergency succession plan for the work that is most important to the company.

D. **Employee Critical Skills Inventory**

Create a table similar to Table 5. at the end of this document listing personnel who have skills in high demand critical areas that could fill in for others in an emergency. The example table lists some typical skill sets for plant operations but should be modified as needed for the skill set categories that suit your department's needs.

E. **INFORMATION SYSTEM (IS) INVENTORY**

E.1. Critical Systems

Create a table similar to the example Table 6. found in the end of this document listing the critical Information Systems and IS Applications which are essential to the most important work done in the department. The following acronyms used in the table are defined as:

RTO (Recovery Time Objective) - The period of time within which systems, applications, or functions must be recovered after an outage.

WRT (Work Recovery Time) - The period of time needed to complete the disrupted work on a recovered/repaired resource in order to return it to normal operational status.

E.2. Loss of Software, Hardware or Data Assets

Create a table similar to Table 7. found at the end of this document to help listing the facility hardware loss strategy. In the event that your critical IT Systems and Applications are not available, what is your strategy to continue work? Would you use a simple Excel spreadsheet to record and manipulate data until the main application was restored? Would you use another application that could do some of the important functions? Is there an old or newer program that would work? Would you cease work? Are there any other relevant questions?

E.3. Recovery of Lost Software, Hardware, or Data Assets

Assume that the loss of Software, Hardware or Data Assets scenario has occurred, and the recovery team has been activated. The general strategy from the previous sections applies but more detail is needed to describe the steps that would be taken.

To capture the detailed tasks that must be initiated, create a table similar to the example Table 8. found at the end of this document and indicate which member(s) of the recovery team (e.g., team leader, team member, or names of individuals) will perform it.

Detailed current backups of the software and systems in Table 8. are maintained on file in a fireproof cabinet in an area separate from the main control area.

E.4. Pandemic Plan Validation

Identify the known gaps, issues and problems with this Pandemic Plan that would make it difficult to succeed, contribute to its failure or make the recovery from a significant event slower and less efficient. Identify the expected time frame to eliminate these problem areas. If an economic, time related, organizational, or technical issue is causing the gap, include the description of this cause. Describe the gaps in order of importance, with the most important one listed first.

E.5. Qualified CROs

a. Long term action is to get APOs sufficiently trained and qualified to fill in as CROs.
b. Cross training of plant personnel is required for better flexibility.

E.6. Limited Vendor Resources

a. Resources critically tied to interstate transportation. These include lime, soda ash, hydrogen, caustic, acid, and ammonia.
b. Some staff may not be from the local area. This makes alternate transportation more difficult and timely relief for ill personnel may not be readily available.

④ THREAT MITIGATION - GENERAL GUIDELINES

The purpose of a Pandemic Management Program is to assist NAES plant management in preparing for a potential pandemic by developing plans to manage the threat. The actions listed below could be taken by all departments to help them minimize the impact if the pandemic threat becomes real.

A. Review existing emergency plans (see Appendix D) and contact lists (see Appendix F). Update these and inform essential personnel.

B. Update the contact list of all employees in your department (see Appendix E). Include after-hours contact number(s); some of these phone numbers may be out of this region, such as parents, or other family members or friends.

C. Identify employees and key customers with special needs and incorporate the requirements of such persons into your preparedness plan.

D. Consider the impact of community containment measures and quarantines, school and/or business closures, and public and financial institution closures.

E. Expand the use of teleconferencing and video conferencing to limit the frequency of meetings and other types of face-to-face contact.

F. Implement guidelines to modify the frequency and type of face-to-face contact (e.g., handshaking, seating in meetings, shared workstations) among employees and between employees and customers.

G. Train and prepare ancillary workforce (e.g., contractors, employees in other jobs or other departments, retirees, etc.).

H. Develop cross training programs to assure adequate staffing of essential functions; consider strategies such as developing "job sheets" that outline key activities by position.

I. Consider a transportation plan in case of fuel shortages and loss of public transportation.

J. Develop a plan to send home non-critical staff and shift workers to home offices or other sites or change work hours that would minimize exposure risks, address potential fuel shortages, and curtail dependence on public transportation.

K. If services are contracted to outside organizations, contact vendors, and find what type of contingency plans they may have in place.

L. Consider the impact of a disruption of social systems and services on your organization (assume the possibility of no response or slow response from emergency first responders, other basic services not available, etc.)

⑤ MITIGATION STRATEGIES

There are several possible risks and mitigations to be considered when planning your strategies. Appendix A contains a listing of the most common risks and the associated mitigations. Each specific facility or department may have more or different risks than those listed in Appendix A.

A. **Protect Work Force**

A.1. Protect the workers that you have.

A.2. Provide the personal protective equipment that may be needed.

A.3. Minimize meetings and face to face contact.

A.4. Wherever possible, get priority medical treatment arranged.

A.5. Provide essential medical training for on-site emergencies.

A.6. Gather the contact phone numbers for your employees and their "out of area" contact numbers (see Appendix E).

A.7. Be prepared to have an alternative way to transport essential employees to work or locations where they can work.

A.8. Consider the impact of civil unrest and a breakdown in social order if police, fire, and other personnel are not available. How will you protect your work site and employees?

A.9. Should you be prepared for some employees to live on the work site for several days or weeks?

B. **Help Employees Protect Their Families**

B.1. Provide information so employees can protect their families and can feel free to work.

B.2. Provide the personal protective equipment that may be needed.

B.3. Counsel employees that need help coping with illness or losses.

C. **Augment the Work Force**

C.1. Broaden the vendor base in type and geographic area.

C.2. Gather the contact phone numbers for your vendors and their after-hours contact numbers.

C.3. Ask that your most critical vendors also have and carry out Pandemic Planning and Mitigation.

C.4. Ask to see their plans and be briefed on them.

C.5. Identify groups of additional workers from other departments, retirees, employment agencies, etc. The lists should be long and geographically diverse.

D. **Protect Work Processes**

D.1. Be prepared to alter your work process and use alternative methods. Your normal software may become disabled due to routine failure and there may not be personnel to get it repaired. Your software or application recovery may not be on a high priority list.

D.2. Cross train your personnel to be more generalists rather than specialists so they can support and stand in for each other.

D.3. Is it possible for vendors to help with more routine work or to outsource some of the work?

D.4. Buy, write, or update procedure or instruction manuals so that a broader segment of the department could do the work. Train the work force on these procedures.

D.5. Maintain essential data on backup CD-ROMs or other sources. Make sure several people know how to access this data.

D.6. Move some processes away from "just in time" methods. The "just in time" processes might collapse when critical materials or data are not available. Some stockpiling or source diversification may be necessary.

D.7. How will you work if the city or state is broken up into quarantined areas?

D.8. Have a current and workable succession plan.

E. **Stockpile Resources**

E.1. Stockpile critical materials (parts, supplies, protective equipment, routine but necessary supplies, fuel, etc.)

E.2. Consider alternative transportation methods to get workers to and from work.

E.3. Consider storing bottled water, canned goods, and emergency meals. Include flashlights, batteries, radios, masks, disposable gloves, soaps and disinfectants.

F. **Reduce Non-Essential Work**

F.1. Each department should identify its most critical business functions and the overall mitigation strategies for them. Determine what lower priority work to cut.

F.2. Each department should determine its essential inputs needed for its work and the critical outputs that others need for their work.

F.3. Reduce work to the most important tasks.

F.4. Reduce personal contact and make essential contact safer.

F.5. Have people work from home where possible.

F.6. Reduce or "sanitize" customer contact.

F.7. Teach proper hand washing, use of sanitizing wipes, use of disinfectant soaps, proper use of effective masks and gloves and other personal protective measures.

F.8. Teach people how to handle potentially contaminated material from other people.

G. **Develop Communication Plans**

G.1. What are the essential information data and messages that need to reach employees, vendors, their families, vendors, customers, and the public?

G.2. What is the structure of these messages, what is the likely content that is needed?

G.3. Develop specific, honest, timely and helpful messages that give the whole, unvarnished truth. Have these messages available and ready to fill in the blanks.

G.4. Have enough people to do the information gathering and to do the communicating.

G.5. Test the messages on people outside of the communications department. Are the messages clear and do they give the intended information?

G.6. What alternative ways will the company use to communicate if normal services are not available? Can Webcasts, internet sites, phone recordings, or other sources be of help?

Attachments

SMP-20 Appendix A: Matrix of Major Risks and Mitigations

SMP-20 Appendix B: Critical Equipment and Materials

SMP-20 Appendix C: Vital Records and Storage

SMP-20 Appendix D: Plant Specific Manuals and Procedural Inspections

SMP-20 Appendix E: Employee Contact List

SMP-20 Appendix F: Emergency Contact List

SMP-20 Table 1: Major Business Functions

SMP-20 Table 2: Largest Risk to Major Business Functions

SMP-20 Table 3: Recovery Strategies

SMP-20 Table 4: Key Personnel and Critical Functions

SMP-20 Table 5: Critical Skills Inventory

SMP-20 Table 6: Work Recovery Time

SMP-20 Table 7: Information Systems (IS) Recovery Strategies

SMP-20 Table 8: Detailed IS Recovery Strategies

Revision Management

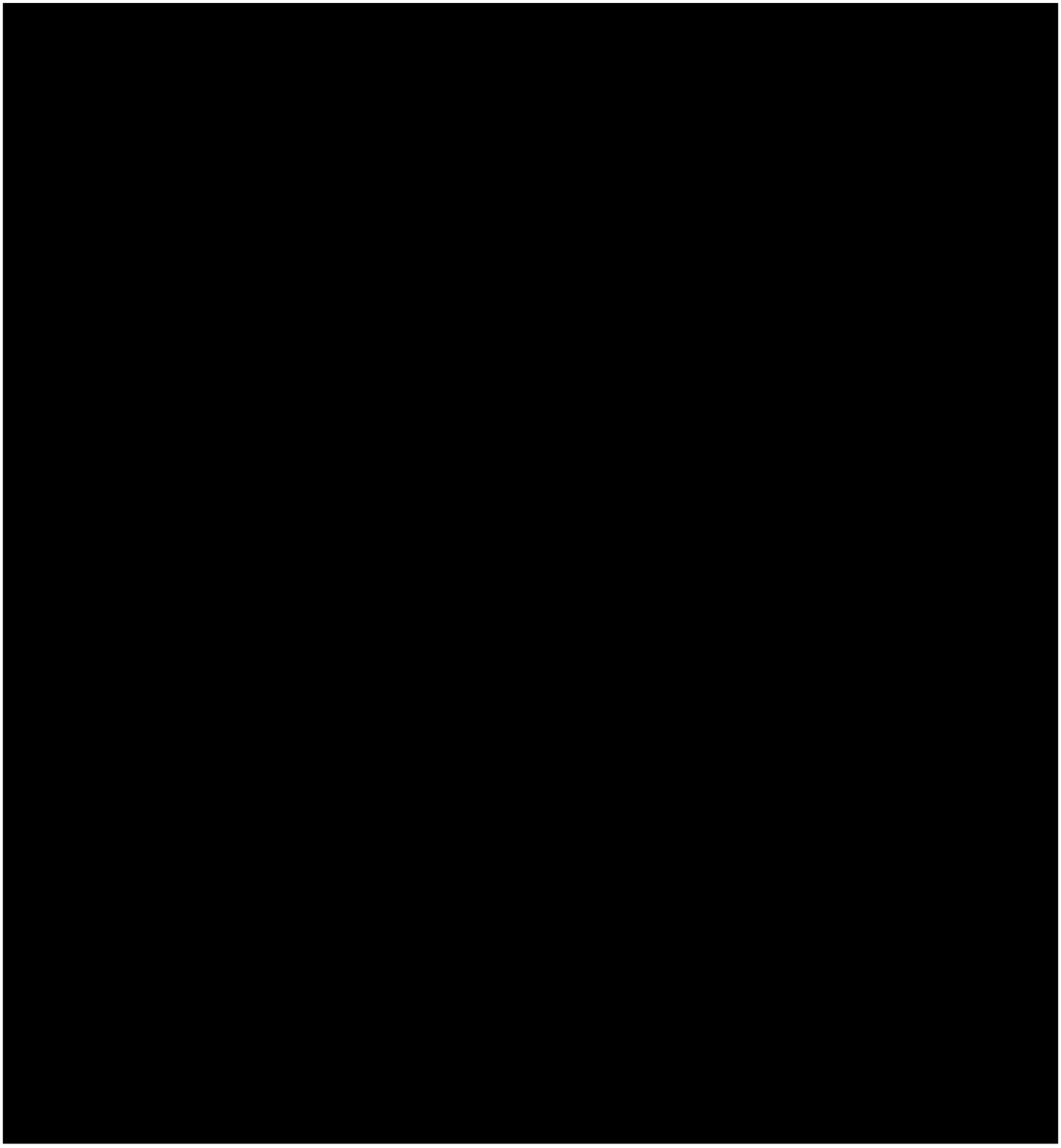
Revision History Log:

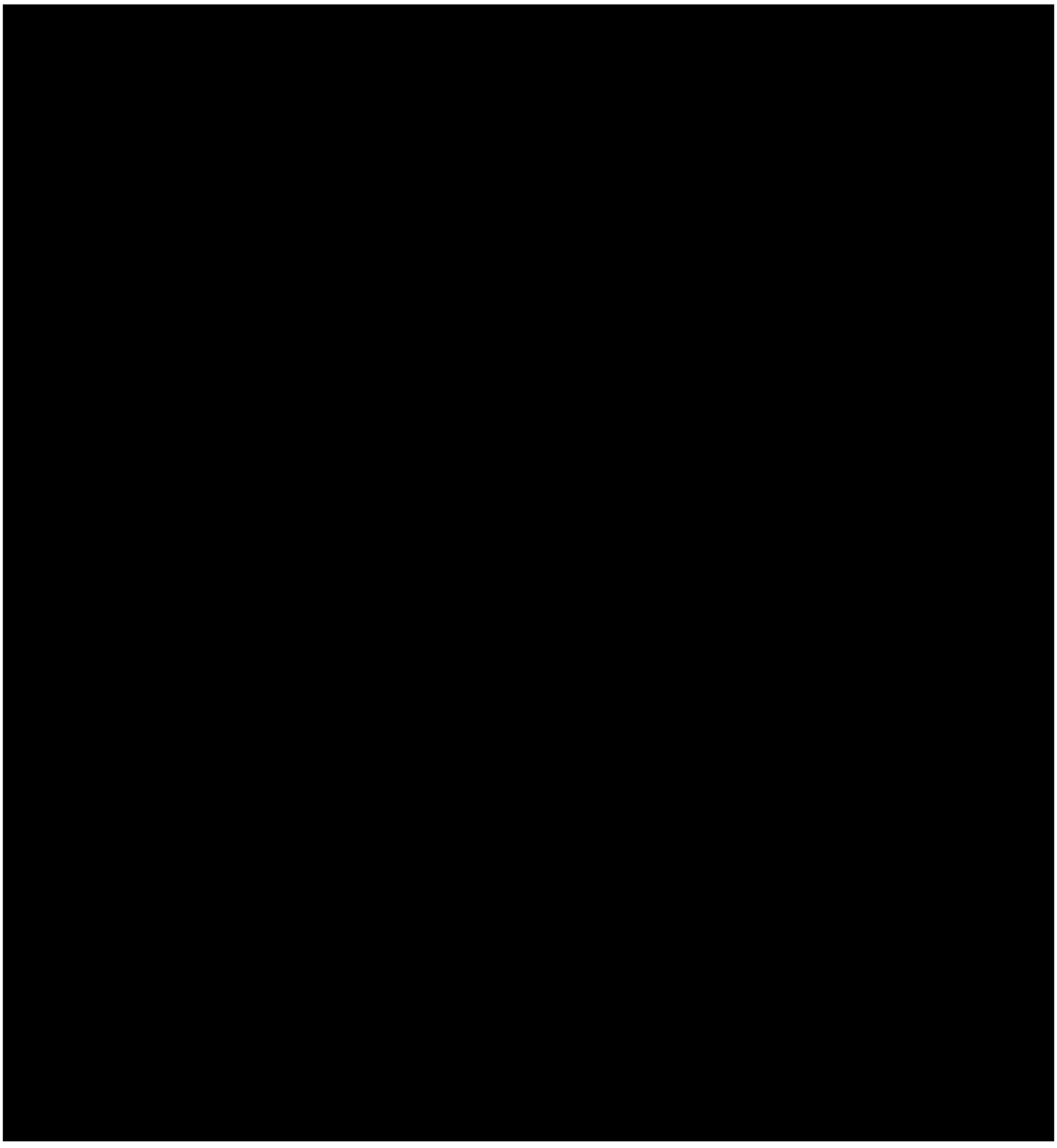
Revision #:	Date:	Nature of Change:	Recorded By:
R0.1	11/14/2019 8:58 AM	Corrected spelling mistakes and other clerical errors.Added 4. Planning Responsibilities and diagram diagram under Responsibilities. Tables moved to the bottom of the document as attachments and corresponding references updated.	Alex Tan
R0	11/7/2019 6:28 AM	Final QC prior to Publication Conducted - Moved to R0 -	Alex Tan

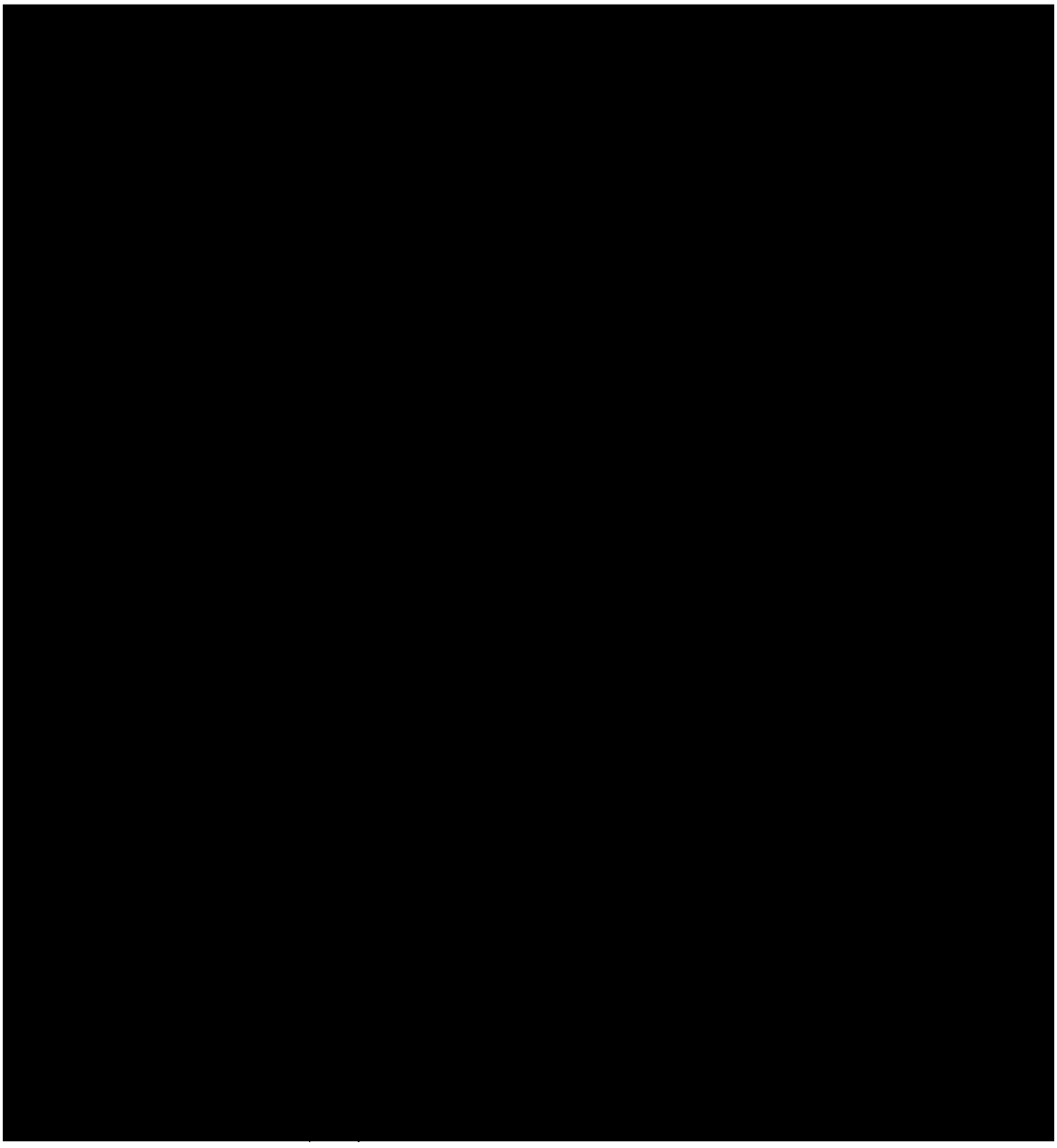
Revision #:	Date:	Nature of Change:	Recorded By:
		Published to Portal	
D1.0	3/12/2019 4:19 PM	New document	Jason Schuler

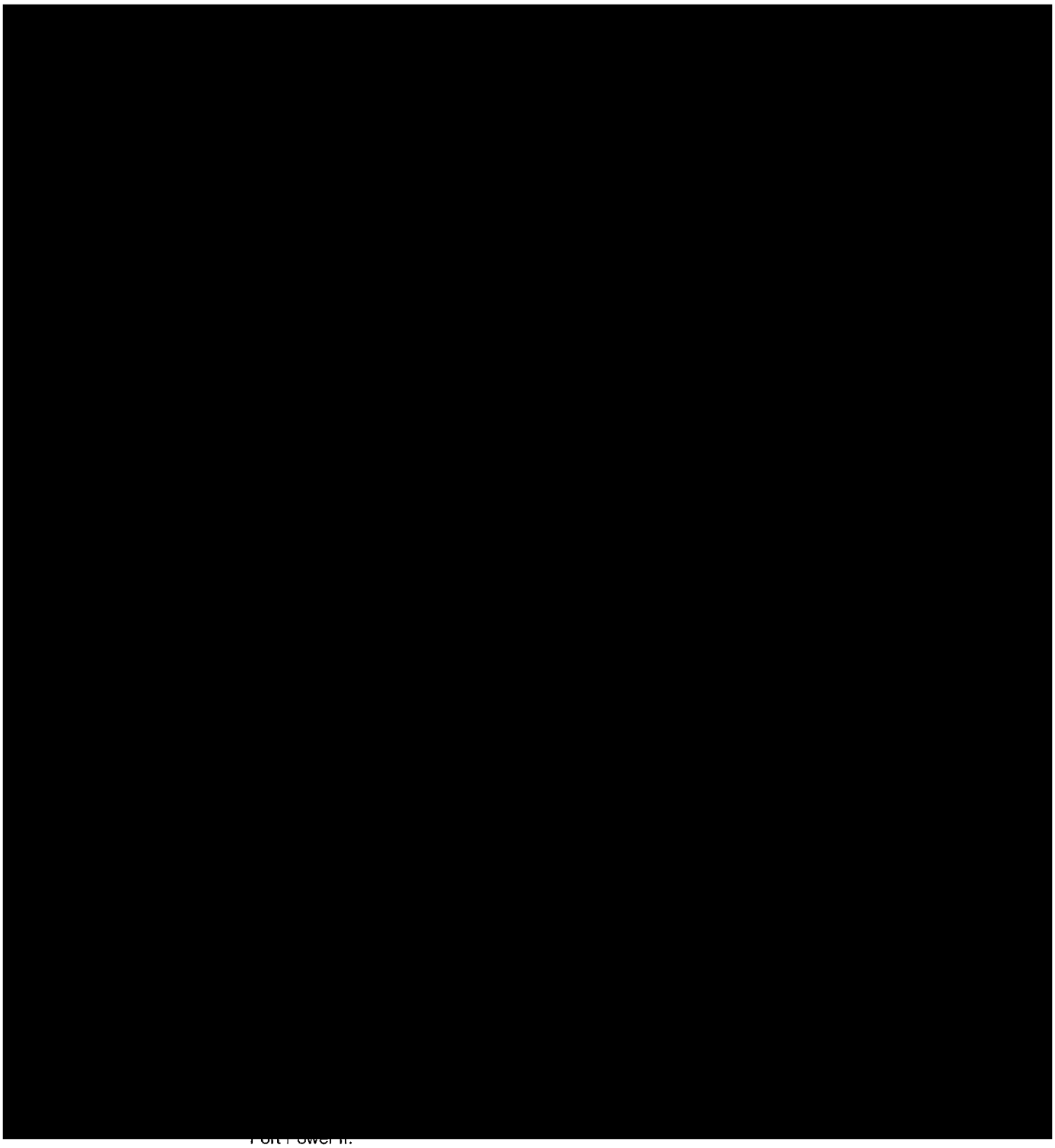
Attachment H – CIP-003-7 Cyber Security - Security Management Control Plan

Attachment I – CIP-003-7 Cyber Security – Cyber Security Incident Plan









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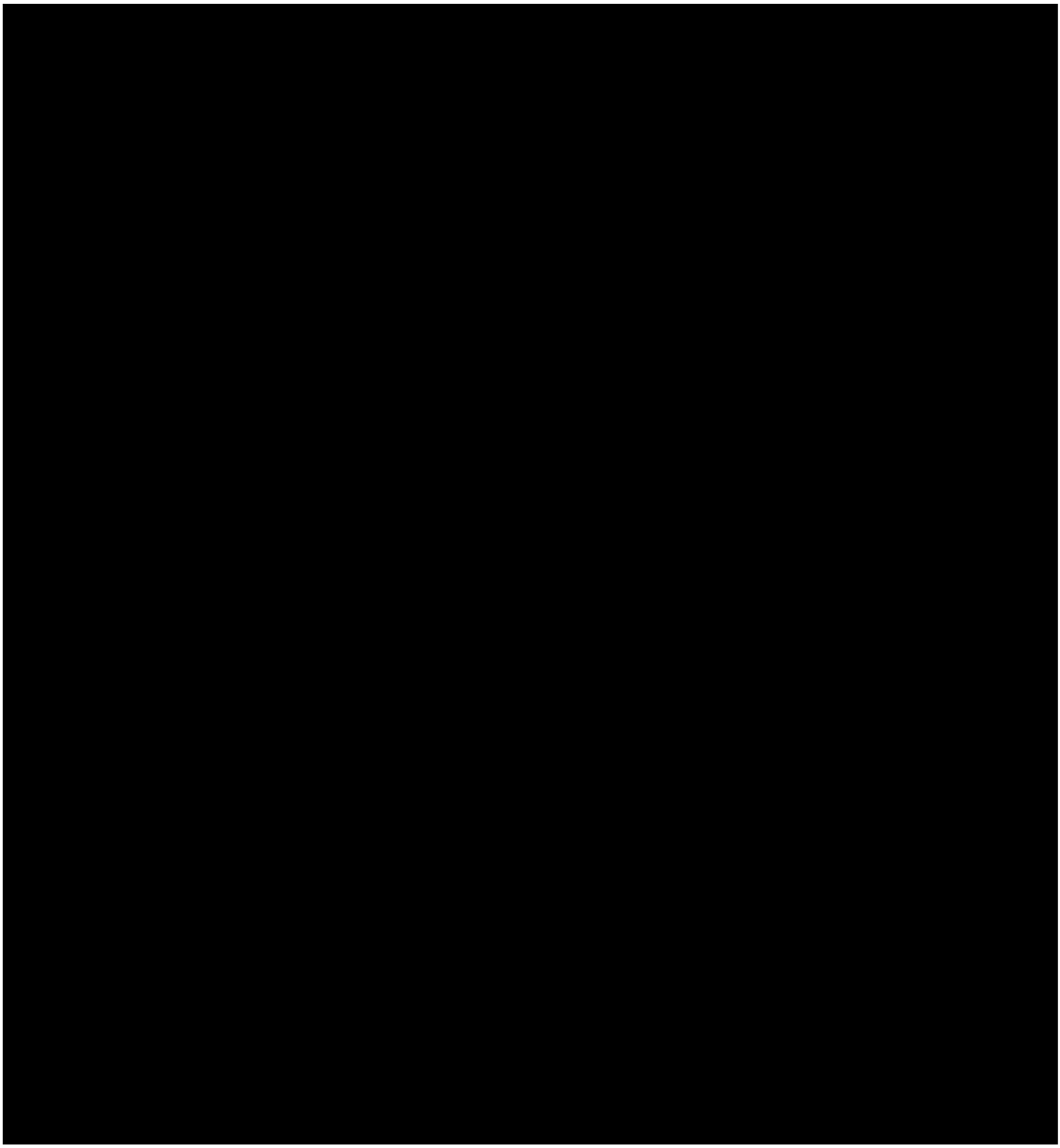

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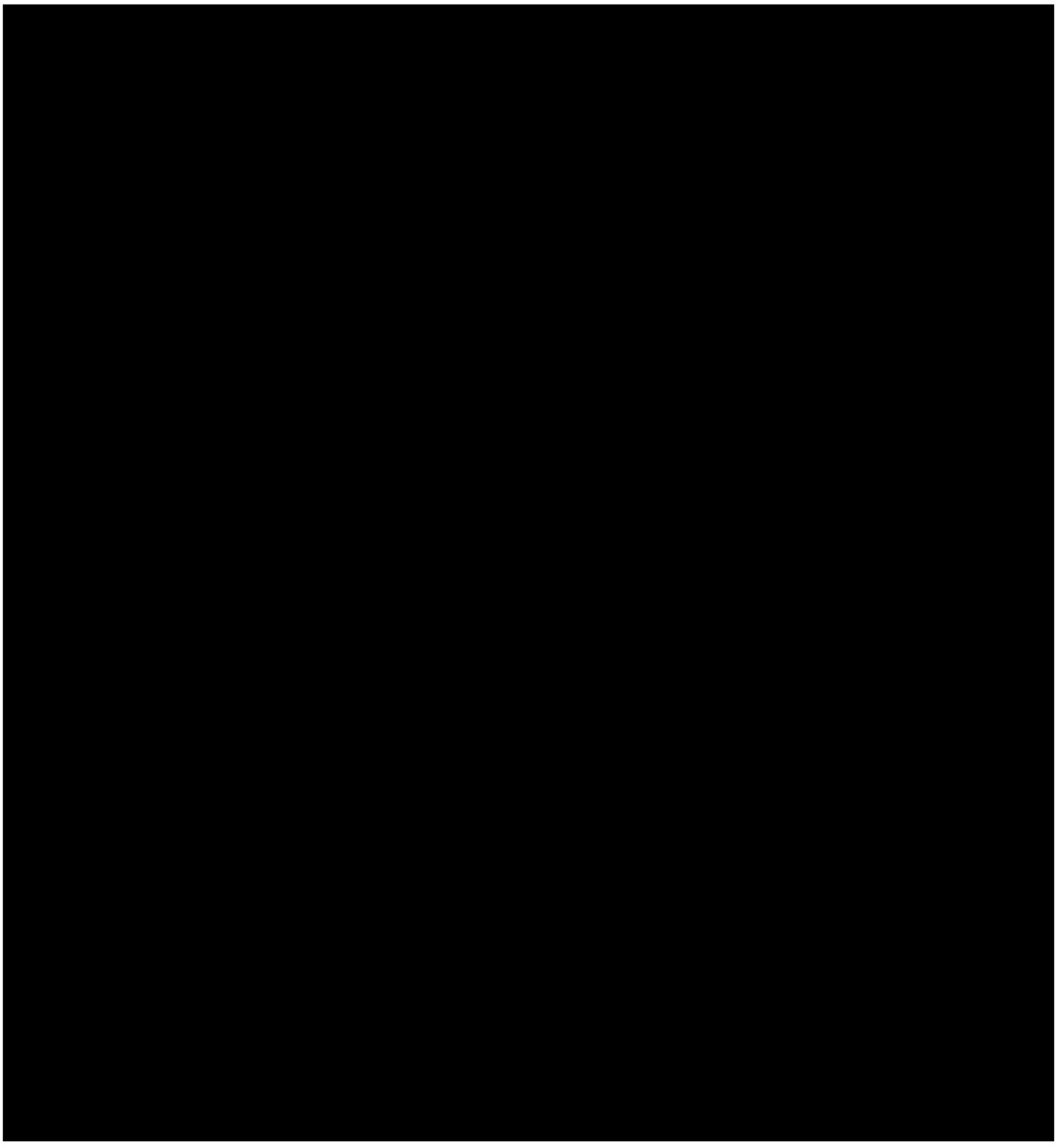

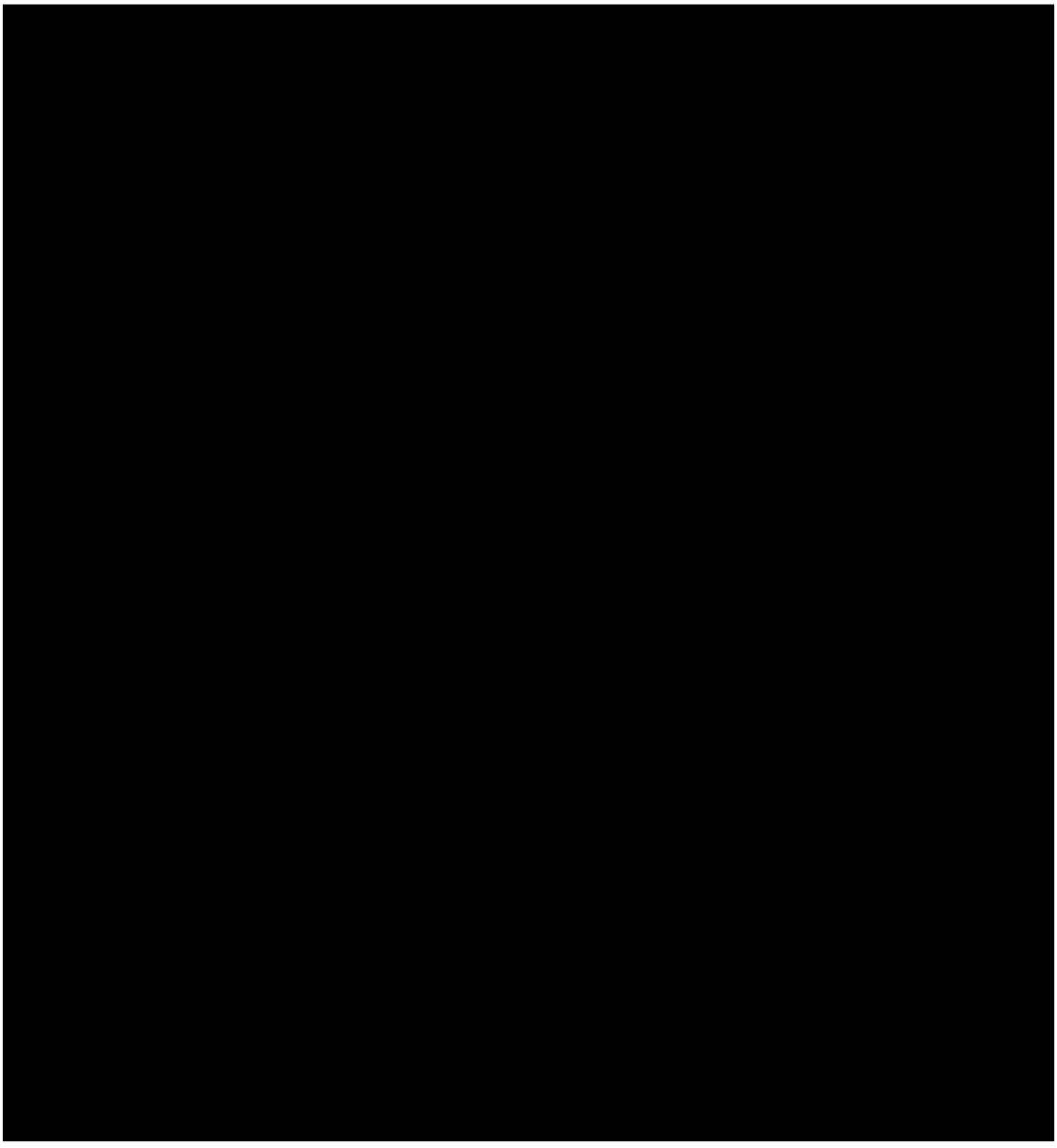

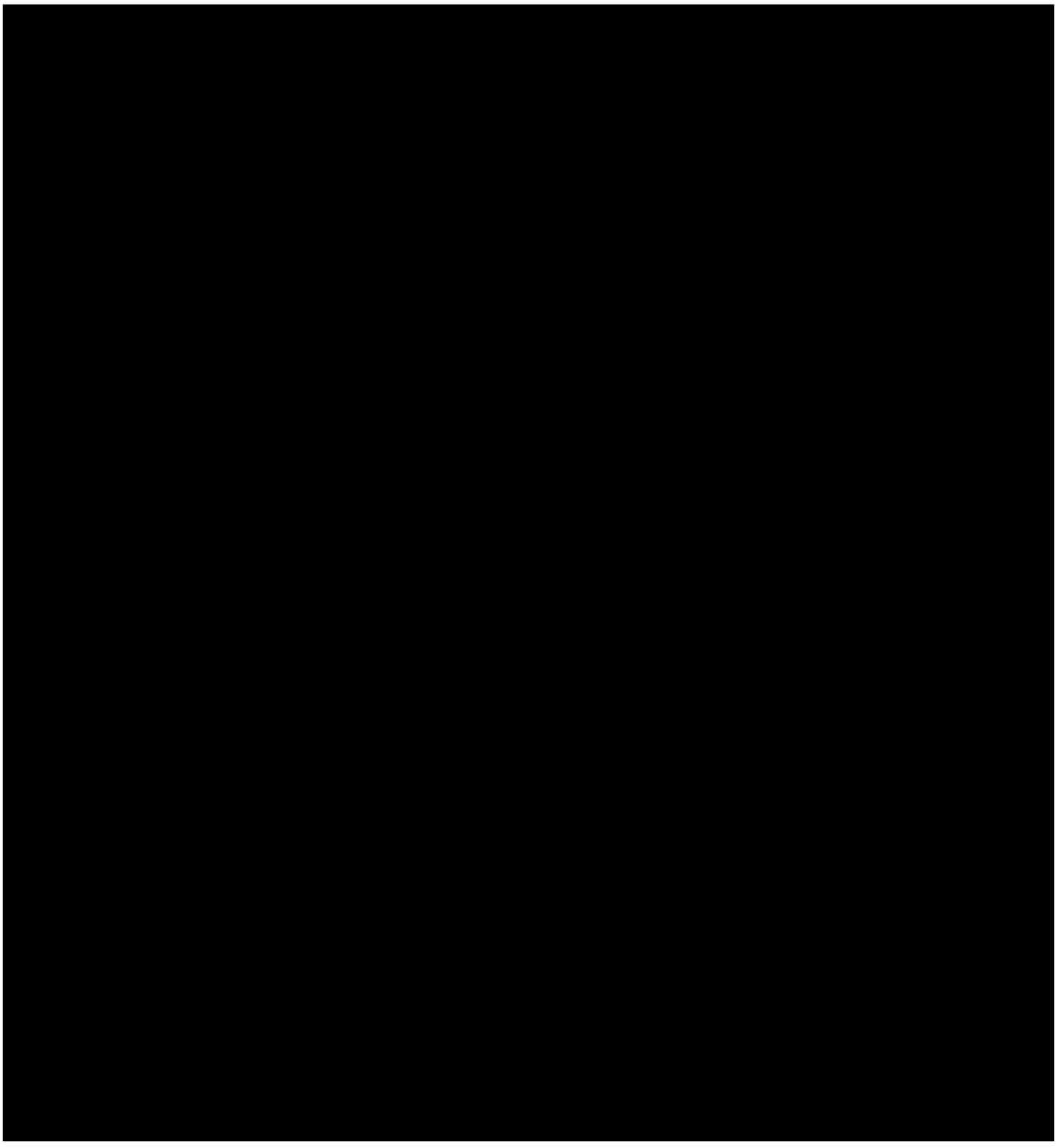

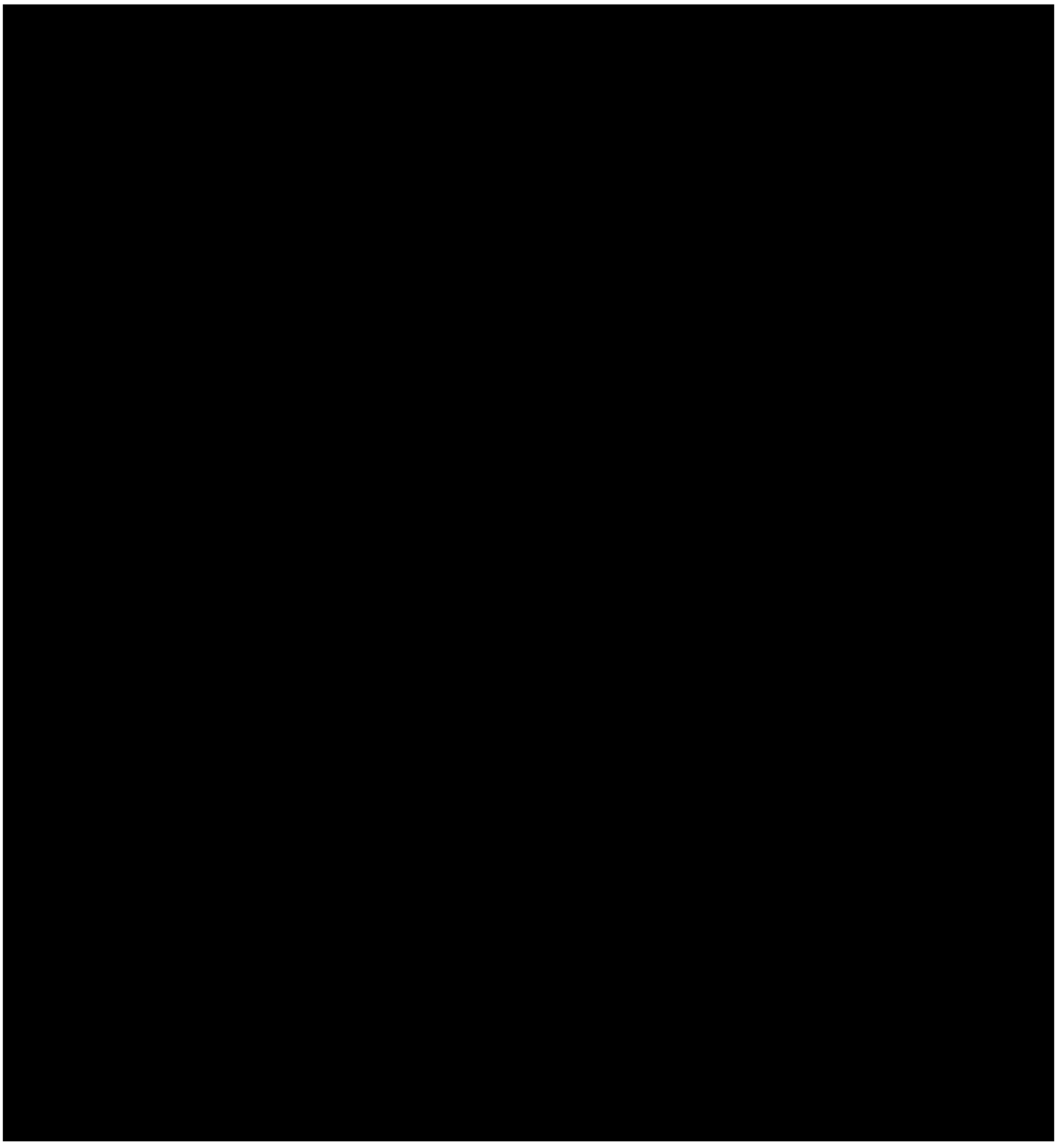

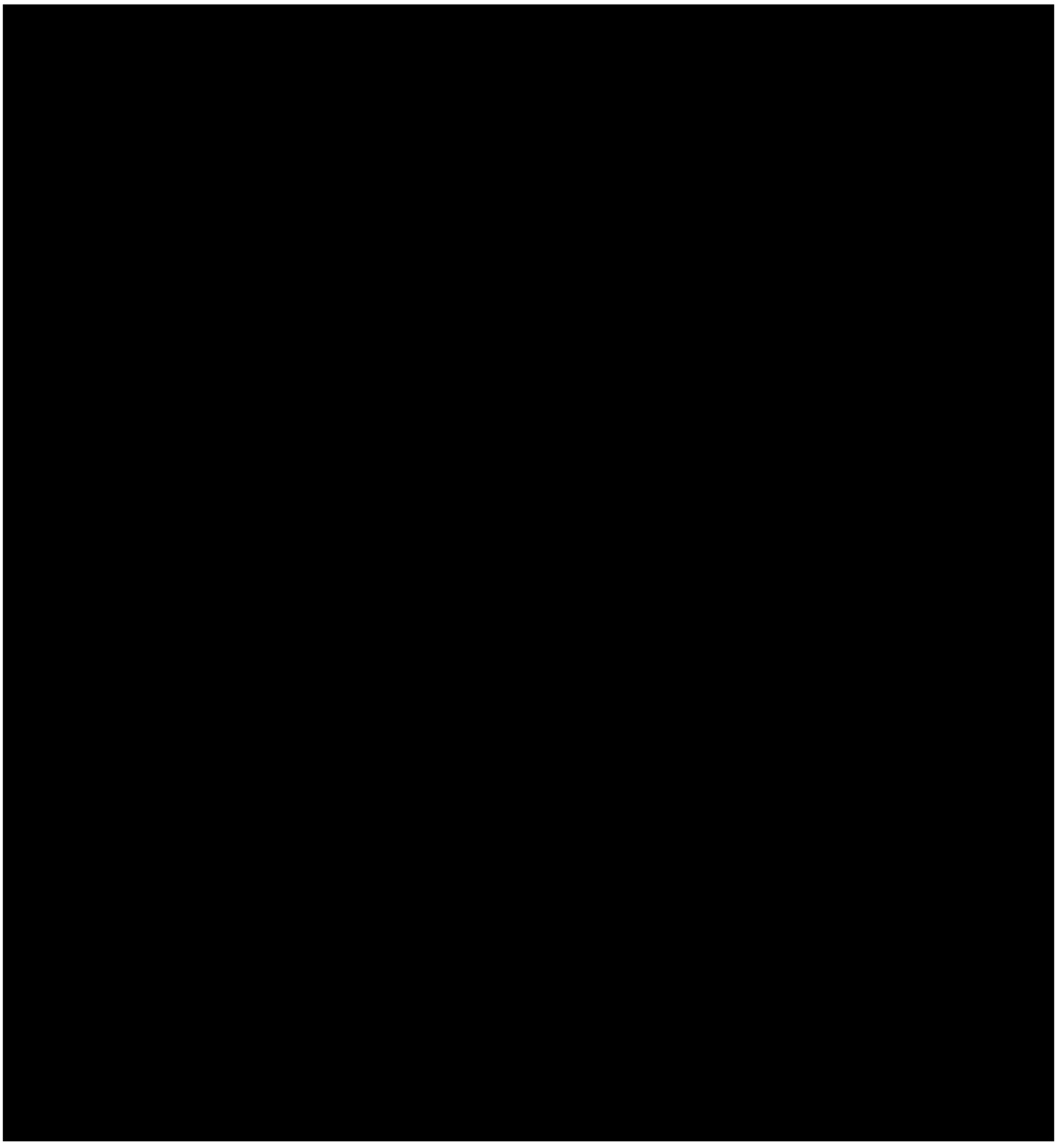

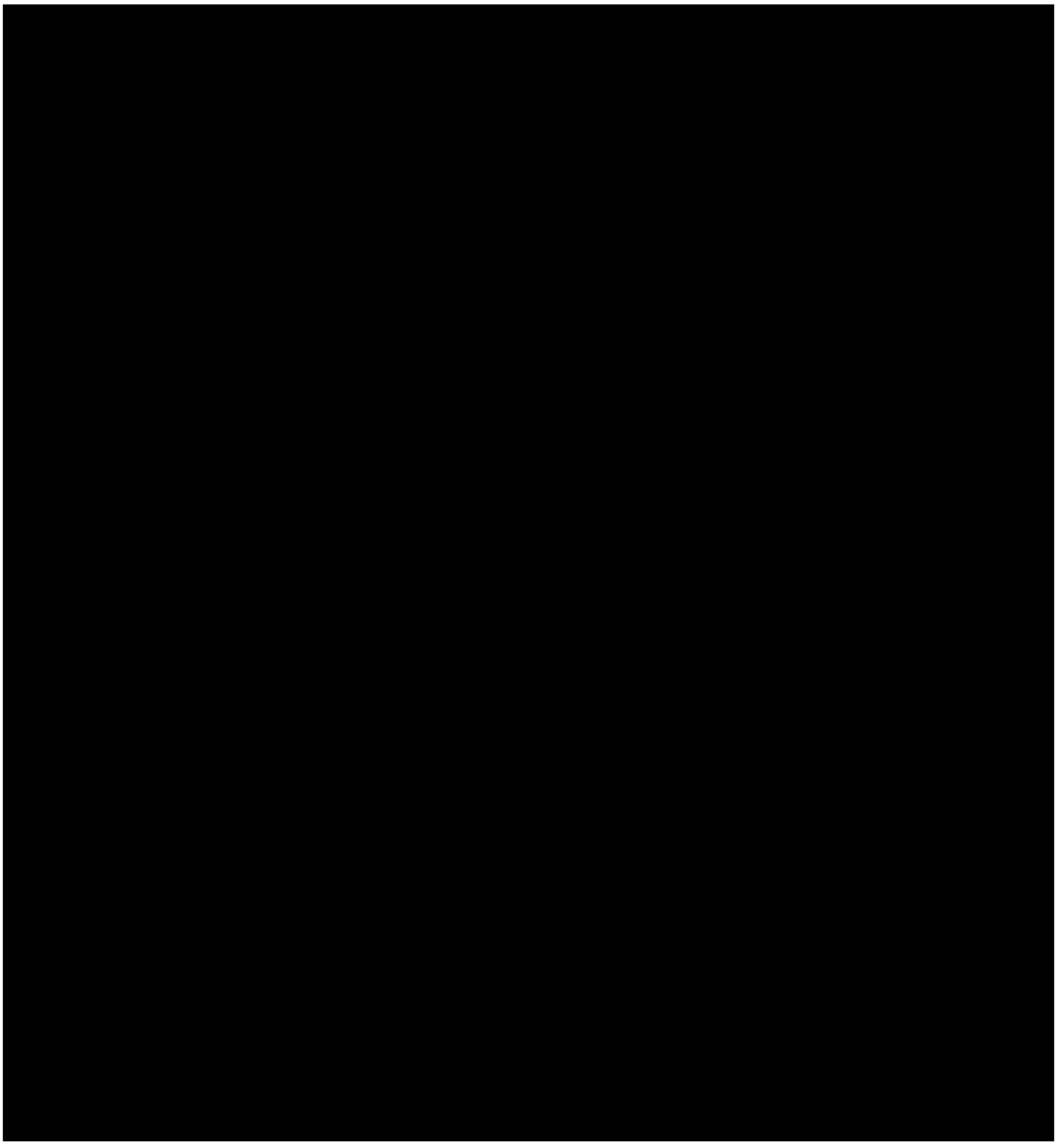

Attachment J – Business Continuity Plan