

## 40 CFR Parts 257

2025 Checklist for P.E. Annual Inspection for CCR Surface Impoundments, §257.83(b) Sikeston BMU

### Sikeston Power Station Bottom Ash Surface Impoundment Annual Inspection

**NOTE – THE BOTTOM ASH POND CEASED RECEIVING WASTE ON JUNE 5, 2023**

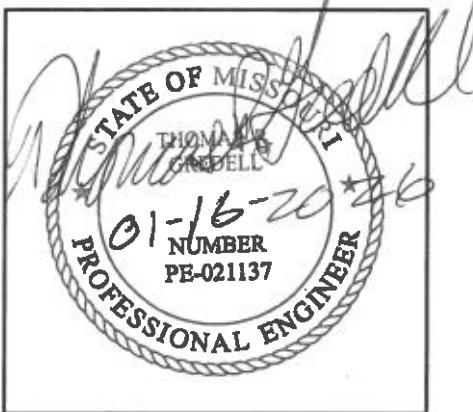
Requirements	Signs of actual or potential structural weakness	Disruptions or potential disruption to the operation and safety of the unit (257.83(b)(vi))
CCR Unit and appurtenant structures 257.83(b)(ii)	None Observed. Continue to monitor.	None Observed. However, potential seepage along northern embankment west of the Fly Ash Pond and on the southwestern embankment. No evidence of erosion or slope instability. Seepage is minor and vegetation is in very good condition. Continue to monitor.
Hydraulic structures underlying the base of the CCR unit 257.83(b)(iii)	None Observed. Continue to monitor.	Visual observation indicates sediment in stormwater box culverts continues to self-clean during heavy rains. The discharge sediment basin was nearing capacity at time of inspection. Cleaning in 2025 is recommended to allow continued self-cleaning of the twin stormwater box culverts, as well as ongoing observation. Separated corrugated metal pipe seams in the south culvert should be observed monthly.

The 2025 Annual Inspection included onsite observations and a review of available weekly and monthly plant inspection reports regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record in general accordance with 257.83(b)(i).

Minor maintenance items associated with routine upkeep and items that require further investigation and/or corrective action observed during the 2025 Annual Inspection presently do not impact the structural integrity of the embankment. SBMU agrees to monitor and address these items in a timely manner through normal maintenance.

**GREDELL Engineering Resources, Inc.**

**Engineer's Seal**



**Thomas R. Gredell, P.E.**

Missouri License: PE-021137

Date: January 20, 2025

**SIKESTON POWER STATION – BOTTOM ASH POND**  
**2024 ANNUAL INSPECTION CHECK SHEET**  
**NOTE – BAP IS INACTIVE SINCE JUNE 5, 2023**

**SIKESTON POWER STATION**  
**Bottom Ash Pond**  
**Annual Inspection Check Sheet**

Date	Multiple dates; last 10-29-25
Inspector	Thomas Gredell, P.E.
Pool Level	Approximately el. < 314.0
Temperature	Varies
Weather	Varies

**1. Date of Previous Annual Inspection:**

- a. November 19, 2024

**2. Date of Previous Periodic Inspection:**

- a. The date of the most recent monthly inspection report reviewed for this Annual Inspection report was December 1, 2025. Weekly and monthly inspection reports by plant personnel were reviewed for this Annual report.

**3. Description of Emergency (EC), Immediate Maintenance (IM), and Minor Maintenance (MM) conditions observed since the last annual inspection:**

- a. The two IM conditions were both noted in the 4-6-25 weekly inspection reports. Reviewing the SPS' inspection staff's handwritten notes, both are for 'erosion on the roads' or 'erosion on ramps'. In past years, recurring erosion has been noted on weekly inspection reports by plant personnel on different occasions. And historically, SPS has periodically graded and/or added gravel to the roads/ramps to correct the situation. No significant ruts or 'potholes' were observed during 2025 site visits. Ramps and berm roads on the north and northeast side of the BAP were being used by contractors during the closure construction of the Fly Ash Pond (FAP). As part of the construction project completed in late December 2025, the ramps and berm roads damaged during closure of the FAP were regraded and/or resurfaced with gravel. Therefore, rutting on the access ramps are repaired as of the end of December 2025.

**4. Describe any action taken to restore or improve safety and integrity of impounding structure:**

- a. Rutting of a ramp and rutting on the top of perimeter berm roads were noted on the April 6, 2024, weekly inspection report. No other mention of potholes and rutting were mentioned in 2025 weekly inspection reports. Potholes and depressions located on the perimeter roads on top of the berms should also be corrected by grading and adding gravel, as required throughout the year.
- b. In response to the observations of potential berm seepage, a field investigation and office evaluation of the north berm was completed in mid-2018 by Reitz & Jens, Inc. as a subconsultant to GREDELL Engineering Resources, Inc. (GER). The conclusion of that evaluation is that the possible seepage did not have a negative impact on the stability of the embankment. Field conditions on the north berm have not changed in 2025. Potential seepage on the west and southwest berms is less prominent with no evidence of slumping, flow, or erosion. No investigations or office evaluations have been made for these areas because no change has been observed. Continued monitoring is recommended until pond closure.

**5. Describe any modifications to the geometry of the impounding structure since the previous annual inspection:**

- a. The bottom ash reclamation stockpile in northwest corner of the Bottom Ash Pond no longer exists. It is noted that the Bottom Ash Pond ceased accepting CCR materials on June 5, 2023. The overall volume of the material in the Bottom Ash Pond was observed to remain the same in 2025 due to no CCR materials being disposed in the Bottom Ash Pond the entire year.

**SIKESTON POWER STATION – BOTTOM ASH POND**  
**2024 ANNUAL INSPECTION CHECK SHEET**  
**NOTE – BAP IS INACTIVE SINCE JUNE 5, 2023**

6. Describe any modifications to the operation of the impounding structure since the previous annual inspection:
  - a. As noted above, the BAP ceased accepting CCR materials on June 5, 2023, and the bottom ash reclamation stockpile in the northwest corner had been removed, resulting in a net zero change, or slight decrease, in CCR volume stored in the pond. No additional modifications have been made to the BAP during 2025.
7. List the approximate remaining storage capacity (Cubic Yards) of the impounding structure:
  - a. No CCR materials have been added to the Bottom Ash Pond since June 5, 2023. Therefore, the remaining storage capacity did not change in 2025 and is no longer relevant since the pond is inactive. See additional information in #8, #9, and #10 below.
8. List the approximate maximum, minimum and present depth, and elevation of the impounded water since the previous annual inspection:
  - a. Intermittent pumping of ponded water continues to be completed by facility staff. Water level is measured by staff gauge at the inactive Recycle Water Recirculation Structure. No recorded readings of the staff gauge were included in the 2025 weekly inspection reports because the water level in the pond remained well below the bottom of the staff gauge throughout the year. The estimated water level is equal to, or less than, elevation 314.0.
9. List the approximate maximum, minimum and present depth, and elevation of the impounded CCR since the previous annual inspection:
  - a. Estimated from 2024 HLR drone survey: CCR occupies approximately 60 acres at an approximate Max. Elev. 318.8 (Depth 16.8'). Min. depth is estimated to be less than 5' or Elev. 307 located beneath the surface of the impounded water. Elevation and Depth of impounded CCR did not change in 2025 because the pond is inactive since June 2023.
10. Approximate volume of impounded water and CCR at the time of the inspection:
  - a. The Bottom Ash Pond ceased receiving waste on June 5, 2023. Using a water level elevation of 314.0, the estimated volume of water is 50,300 CY (10.2 Million Gallons). The volume of water varies due to rainfall and evaporation in 2025 due to the BAP being inactive.  
  
The volume of CCR stored in the pond did not change in 2025 because the pond has been inactive since June 2023. However, the estimated volume of CCR stored in the pond was re-calculated using a topographic and bathymetric survey completed in 2024. Using the 2024 HLR survey ash surface data, the estimated CCR volume is 1,388,000 CY.
11. Describe any changes to the downstream watershed since the last annual inspection:
  - a. No changes to the downstream watershed occurred in 2025.

**SIKESTON POWER STATION – BOTTOM ASH POND**  
**2024 ANNUAL INSPECTION CHECK SHEET**

<b>Inlet and Outlet Works - NOTE – BAP IS INACTIVE SINCE JUNE 5, 2023</b>		
Item	Condition Code	Comments
Outlet Condition	GC	The BAP is inactive. Concrete intake with stop logs, gravity discharges into buried 10-inch carbon fiber pipe that runs north and then west-northwest to Process Waste Pond. [The Water Recirculation Structure is no longer operational. The emergency overflow to the Fly Ash Pond was removed as a part of the Fly Ash Pond Closure project in 2025.]
Gate Condition/ Operability	GC	BAP stop logs originally controlled water level but are not present at the structure and are no longer used. A control valve north of the discharge is utilized for flow control if needed. The current water level in the Bottom Ash Pond is well below the gravity pipe discharge. .
Leakage	NI	According to the weekly inspection reports, no leakage was observed in 2025. The water level in the BAP during 2025 remained below all outfall structures.
Outfall Condition	NI	Discharge pipe is at Process Waste Pond. Approximately 1.5' of the discharge pipe is damaged along the east side of the pipe at the outfall but does not compromise the operation of the discharge pipe. No change since 2016. The water level elevation in the BAP during 2025 remained well below all outfall structures.
Discharge (color and/or sediment)	NI	The water level elevation in the BAP during 2025 remained well below all outfall structures.
Obstructions	NE	The flow line to the outlet structure is obstructed by weeds and dead vegetation. However, the water level in the pond is well below the flow line of the discharge structure/pipe.
Instrumentation	GC	<p>Water level is measured by staff gauge at the inactive Recycle Water Recirculation Structure. No recorded readings of the staff gauge were included in the 2025 weekly inspection reports because the water level in the pond remained well below the bottom of the staff gauge throughout the year. The estimated water level is equal to, or less than, elevation 314.0.</p> <p>There are two (2) piezometers (installed ~ 2011) constructed within the Bottom Ash Pond perimeter berms that serve to monitor water or saturation within the pond berms. These are identified as P-8 and P-10. Total depths are approximately 25 feet and 19 feet, respectively. P-8 water levels ranged from 23.22 to 24.73 feet below the top of casing in 2025. P-10 water levels fluctuated between 9.85 and 14.35 feet below top of casing in 2025, according to the 2025 monthly instrumentation monitoring reports.</p>

**SIKESTON POWER STATION – BOTTOM ASH POND**  
**2024 ANNUAL INSPECTION CHECK SHEET**

Inlet Piping Condition	NI	Inlet pipe for bottom ash (estimated 8 to 10-inch iron pipe) is inactive as of June 5, 2023. In addition, the pipe trench sump discharge pipe (4-inch PVC pipe) and plant operations wastewater inlet (12-inch iron pipe) have been inactive since June 2023.
------------------------	----	---

<b>Inlet and Outlet Works - NOTE – BAP IS INACTIVE SINCE JUNE 5, 2023</b>		
Item	Condition Code	Comments
Emergency Spillway	Other (NI)	The buried 30-inch pipe designed to convey excess water from the Bottom Ash Pond to the Fly Ash Pond, as needed, was removed as part of the FAP closure.
Other: Buried Storm Water Box Culvert	OB (overall)	<p>Dual buried box culverts convey offsite stormwater from the east side of the Bottom Ash Pond (west end of Compress Road) to the west side of the Pond. The culverts discharge through corrugated metal culverts into an open channel on the west side. In 2017, a sediment basin was dug out below the pipe discharges, increasing the sediment capacity below discharges. This apparently has increased the flow velocity and flushed out the sediment that had built up in the culverts during heavy rainfall events.</p> <p>We recommended re-excavating the sediment basin in 2025, with the excavation being approximately 50 foot long by 30 foot wide by 5 feet deep. However, GER does not believe that this occurred, therefore, we again recommend that SPS re-excavate the sediment basin in 2026. This will return the capacity of the sediment basin to prevent sediment from accumulating above the discharge elevation of the discharge end of the stormwater culverts and should provide adequate sediment capacity for several years. However, we recommend continuing routine observation of the sediment accumulation at the discharge end of the twin stormwater culverts.</p> <p>Beginning in 2016, it has been noted that the downstream, corrugated metal pipe sections of the southern stormwater culvert passing beneath the Bottom Ash Pond were damaged. Specifically, less than 12-inches (in length) of an overlapping metal culvert seam at the top of the pipe was bent. The bituminous lining of the corrugated metal culverts was noted to be cracking and deteriorating. This condition is visible from the west (discharge) end of the culverts and has continued to be observed during annual inspections since 2016. It is noted that the condition has not changed since 2016 and that it was not directly observed in 2025.</p> <p>According to the 2025 weekly inspection reports, water was occasionally observed to flow into the east inlet, and out of the west end of the culverts. In the cases where flow out of the west end of the culverts was observed, the water was clear.</p>

**SIKESTON POWER STATION – BOTTOM ASH POND**  
**2024 ANNUAL INSPECTION CHECK SHEET**

<b>Earth Embankment - NOTE – BAP IS INACTIVE SINCE JUNE 5, 2023</b>		
<b>Item</b>	<b>Condition Code</b>	<b>Comments</b>
Vertical & Horizontal Alignment of Crest	OB	The eastern 2/3 (approximately) northern berm has been damaged due to high traffic during the FAP closure. Repair of the northern berm is recommended by filling with gravel and grading to restore the minimum vertical elevation and berm alignment.
Seepage/Wetness / Ponding Areas	OB (Ponding)	Past inspections have noted ponding in the perimeter flat bottom ditch inside rail loop. This appears to be caused by the flat grade of the railroad bed and does not appear to be seepage. The ponding restricts mowing of the ditch during wet periods but otherwise is not a concern. No ponding was observed in October 2025, likely due to dry weather conditions in the latter half of the year. Continue to monitor.
	OB (Berm Seepage)	An area along the northern berm of the Bottom Ash Pond, west of the Fly Ash Pond has previously been identified as an area of potential seepage from the Bottom Ash Pond. In mid-2018, GER subcontracted to Reitz & Jens, Inc. (St. Louis) to complete an evaluation of the area of the northern embankment of the Bottom Ash Pond. The report stated that the possible seepage did not have a negative impact on the stability of the embankments. Future remediation of the wet area may be considered in the future based on regulatory or other considerations. However, SPS has maintained the water level in the pond at elevation 314.0+/- which minimizes the saturation of the berm and will therefore minimize the risk associated with berm failure.  A separate saturated area along the southwestern berm of the Bottom Ash Pond was previously observed during the 2021 annual inspection. Green vegetation was observed at this location in 2022 during a regional drought condition. No change was noted in 2025. Continue to monitor.

**SIKESTON POWER STATION – BOTTOM ASH POND**  
**2024 ANNUAL INSPECTION CHECK SHEET**

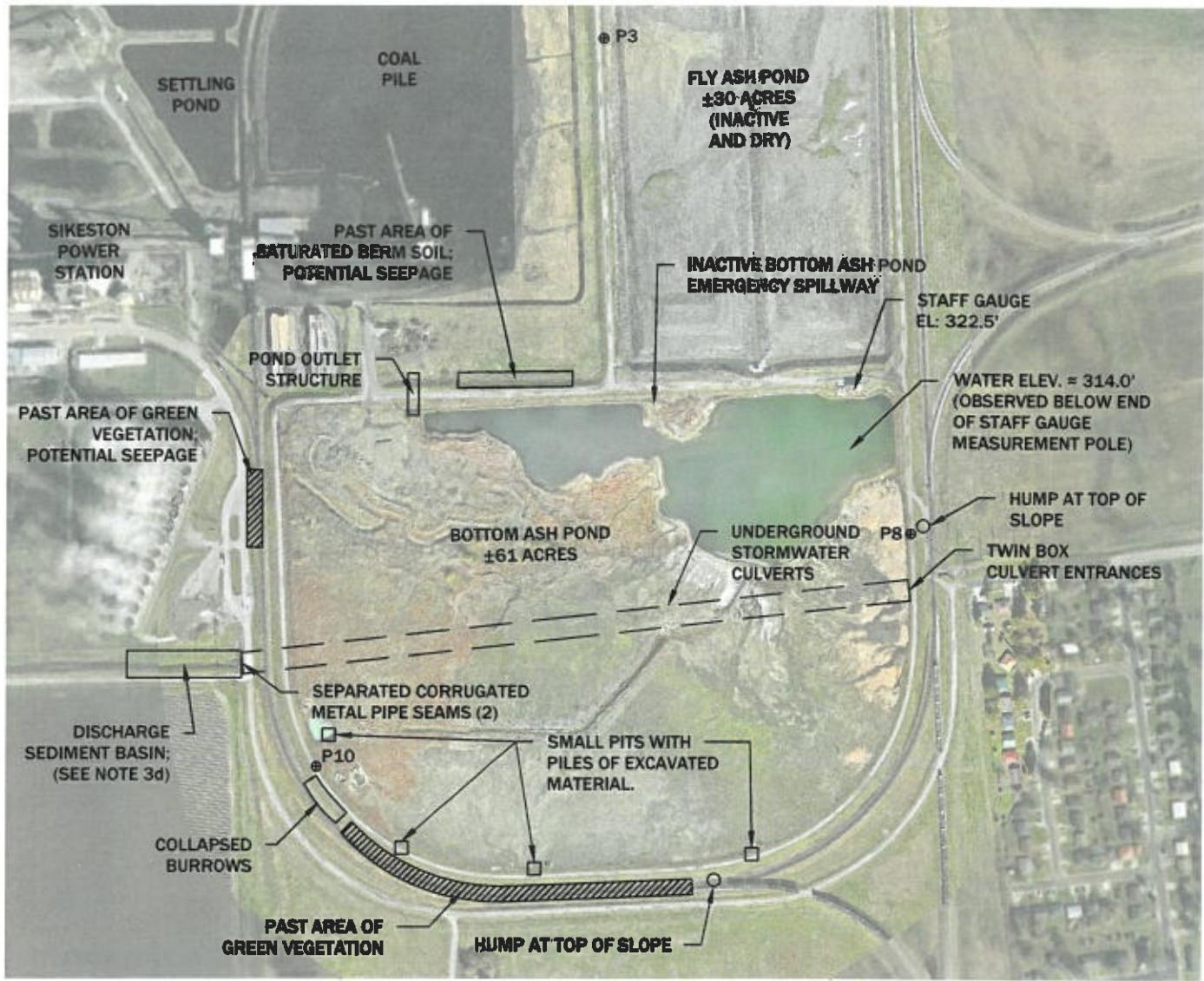
Erosion/Rutting	MM/OB	The two IM conditions were both noted in the 4-6-25 weekly inspection reports. Reviewing the SPS' inspection staff's handwritten notes, both are for 'erosion on the roads' or 'erosion on ramps'. In past years, recurring erosion has been noted on weekly inspection reports by plant personnel on different occasions. And historically, SPS has periodically graded and/or added gravel to the roads/ramps to correct the situation. No significant ruts or 'potholes' were observed during 2025 site visits. Ramps and berm roads on the north and northeast side of the BAP were being used by contractors during the closure construction of the Fly Ash Pond (FAP). As part of the construction project completed in late December 2025, the ramps and berm roads damaged during closure of the FAP were regraded and/or resurfaced with gravel. Therefore, rutting on the access ramps are repaired as of the end of December 2025.
Fencing	GC	No fencing is adjacent to the Bottom Ash Pond. Overall, SPS power plant fencing is intact and well maintained.
Vegetation	NI	This federal CCR rule criteria has been remanded and, therefore, is not currently applicable. The height of the grass cover in the 2025 inspection reports was commonly greater than six (6) inches, and sometimes as great as three (3) feet. Woody vegetation on slopes was occasionally noted in the 2025 weekly inspection reports as well. In October 29, 2025, the outside slopes of the perimeter berm had been mowed. This is the recommended method for eliminating woody vegetation.
Sloughs/Slides/ Cracks	GC	Two small 'humps' have been noted at the top of the outer berm slope since 2016, have not changed during that timeframe, and have not been considered structural problems.
Animal Control	GC	No evidence of animal burrows or holes was noted in the 2025 weekly inspection reports. However, evidence of animal burrows or holes was observed in 2024 and they were corrected. Repairing animal burrows is the recommended remedy.
Other	NA	No other items were observed that are applicable to the federal CCR rules.

Condition Codes:

- EC** Emergency Condition – a serious safety condition exists that requires immediate action.
- IM** Immediate Maintenance – an item that requires maintenance within about 30 days to ensure safety or operation.
- MM** Minor Maintenance – item needing minor maintenance or repair within 6 months.
- OB** Observation – condition requires regular observation to ensure that the condition does not become worse.
- GC** Good Condition.
- NE** No Evidence of a problem.
- NI** Not Inspected. State reason in comments.

Note location of observations on attached plan sheet (Figure 1).

**NOTE – BAP IS INACTIVE SINCE JUNE 5, 2023**

**NOTES**

1. IMMEDIATE MAINTENANCE ITEMS INCLUDE:
  - a. COLLAPSED BURROWS ALONG THE SOUTHEAST CORNER OF BERM.
2. MINOR MAINTENANCE ITEMS INCLUDE:
  - a. APPROXIMATELY FIVE LOW SPOTS IN THE GRAVEL ROAD ON THE NORTH PERIMETER BERM OF THE BOTTOM ASH POND.
3. ITEMS REQUIRING FURTHER OBSERVATION INCLUDE:
  - a. PAST AREA OF SATURATED BERM SOIL ALONG NORTHERN BERM, WEST OF THE FLY ASH POND. (CONDITIONS ARE UNCHANGED SINCE 2016)
  - b. PAST AREA OF GREEN VEGETATION ON WESTERN AND SOUTHWESTERN BERM SLOPES INDICATE POSSIBLE SEEPAGE. CONTINUED OBSERVATION AND MONITORING RECOMMENDED.
  - c. SEPARATED CORRUGATED METAL PIPE SEAMS AT THE DISCHARGE END OF THE SOUTHERN STORMWATER CULVERT PASSING BEHIND THE BOTTOM ASH POND. (CONDITIONS ARE UNCHANGED SINCE 2016)
  - d. GRASS-LINED CHANNEL AT THE OUTLET OF THE STORMWATER CULVERT PASSING BEHIND THE BOTTOM ASH POND FROM EAST TO WEST REMAINS CLEAR OF BRUSH. THE SEDIMENT BASIN IS PARTLY FILLED WITH SEDIMENT AND DEBRIS. RE-EXCAVATION OF THE SEDIMENT BASIN IS RECOMMENDED IN 2026.
  - e. TWIN BOX CULVERT VIDEO INSPECTION WAS COMPLETED IN 2021 TO VERIFY STRUCTURAL STABILITY.
4. ITEMS IDENTIFIED DURING THE ANNUAL INSPECTION WHICH DO NOT REQUIRE MAINTENANCE:
  - a. THE HISTORICALLY IMPEDED OVERFLOW STRUCTURE BETWEEN THE BOTTOM ASH POND AND THE FLY ASH POND.

**LEGEND:**

PIEZOMETER  
GREEN VEGETATION



**FIGURE 1**  
**BOTTOM ASH POND**  
**2025 ANNUAL INSPECTION**

**SIKESTON POWER STATION**

**GREDELL**  
ENGINEERING RESOURCES  
CIVIL • GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • EARTH SCIENCES  
1505 East High Street  
Jefferson City, Missouri  
MO CORP. ENGINEERING LICENSE NO. E-2001001669-D

Telephone: (573) 659-9078  
Facsimile: (573) 659-9079

DATE 01/2026	SCALE 1" = 500'	PROJECT NAME SIKESTON - ANNUAL INSPECTION	REVISION N/A
DRAWN CM	APPROVED TG	FILE NAME 2025 ANNUAL INSPECTION BAP	SHEET # 1 OF 1