INDIAN POINT 2 & 3

UNDERGROUND COMPONENTS INSPECTION PLAN

ENTERGY NUCLEAR ENGINEERING PROGRAMS

APPLICABLE SITES

All Sites: ☐

Specific Sites: ANO ☐ GGNS ☐ IPEC ☒ JAF ☐ PLP ☐ PNPS ☐ RBS ☐ VY ☐ W3 ☐ HQN ☐

Safety Related: ☐ **Yes**

☒ **No**

Program Section Revision Summary	
Current Revision	Description of Change
0	New program section in response to NEI 09-14 for underground/buried equipment inspections.

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REVIEW AND CONCURRENCE SHEET

Program Section Title: **Indian Point Underground Components Inspection Plan**

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REVISION STATUS SHEET

SECTION	PAGE NO.	REV.
Main Body	1 - 17	0
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A. PURPOSE

The purpose of this Program Section is to document the site's inspection plan for underground piping and tanks. The inspection plan development represents a specific commitment milestone in the NEI Industry Initiative that is due by June 30, 2011.

B. BACKGROUND

Many nuclear plant systems contain one or more lines that are underground or buried. These systems may include safety and non-safety service water, circulating water, fire protection, diesel fuel oil, spent-fuel pool cooling water, miscellaneous radioactive lines, off-gas and yard drains. Many buried lines are coated or tape-wrapped with materials such as concrete, coal tar, asphalt-based materials, or epoxy. Although many of these lines were cathodically protected when plants were constructed, in many cases the cathodic protection system may not have been maintained or used consistently. The result is accelerated external degradation at locations where the coating has failed. Additionally, certain systems can be subject to internal corrosion as a result of microbiologically influenced corrosion (MIC) and other degradation mechanisms.

Over the past several years there have been instances of inadvertent releases of licensed material due to underground and buried piping leaks from nuclear power plants. While none of these instances have threatened public health and nuclear safety or compromised environmental protection, public confidence in the safe operation of nuclear power plants has been affected and needs to be addressed.

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C. REFERENCES

1. NEI 07-07, Final "Industry Ground Water Protection Initiative – Final Guidance Document", August 2007
2. "Buried Piping Integrity Initiative", November 18, 2009
3. NEI 09-14, Rev. 1 "Guideline for the Management of Buried Piping Integrity", January 2010
4. "Underground Piping and Tanks Integrity Initiative", September 2010
5. Letter to Mr. William Borchardt, NRC Executive Director for Operations, titled "Industry Initiative on Buried Piping Integrity", dated November 20, 2009
6. EPRI TR-1016456, "Recommendations for an Effective Program to Control the Degradation of Buried Pipe", December 2008
7. Entergy Procedure EN-DC-343, Rev. 2 "Buried Piping and Tanks Inspection and Monitoring Program", January 2010
8. Entergy Program CEP-BPT-100, Rev 0 "Buried Piping and Tanks Inspection and Monitoring", October 2009
9. Entergy Project Report – "Guidelines for Management of Reasonable Assurance of Integrity for Above and Under Ground SSCs Containing Radioactive Material", September 2010
10. Engineering Report ECH-EP-10-00001, "Radiological SSC Groundwater Initiative Risk Evaluation Criteria", June 2010
11. Entergy Project Summary Report – "Radiological Material Leak Prevention to Groundwater of Above and Under Ground Structures, Systems and Components", September 2010
12. EPRI Report IR-2010-409, "Inspection Methodologies for Buried Pipes and Tanks", June 2010
13. EPRI Report 1019115, "Buried Pipe Guided Wave Examination Reference Document", Oct 2009
14. IP-SMM-EV-103, "Petroleum Bulk Storage Tank Program"

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D. DEFINITIONS

Buried Piping and Tanks - Piping and tanks that are below grade and in direct contact with the soil or concrete (e.g. a wall penetration or embedded in concrete).

Cathodic Protection (CP) - The application of a current to the outside surface of the pipe with the purpose of reducing the susceptibility of exposed sections of buried pipe (exposure caused by coating deterioration, damage, or voids) to corrosion. The application of a low voltage residual current causes a shift (with respect to the anode) of the electrolytic potential at pipe exposed sites and thereby places the pipe in a more protected, less corrosive environment.

Direct Examination – Examination performed so as to be capable of mapping and categorizing corrosion defects. Direct exam may include soil excavations that enable visual testing (VT), and manual measurements [including: ultrasonic testing (UT), radiological testing (RT), pit gage] to be performed. Direct examination can also include "smart pigging".

Indirect Inspection - Inspection that provides information on the condition of an underground pipe remotely; from ground level or from an exposed section of pipe that is distant or remote from the pipe section of interest.

Reasonable Assurance (RA) – Reasonable Assurance is obtained when an engineering evaluation (including Fitness-for-Service), indirect inspections, direct examinations, and remediation, if necessary, of underground components is performed. Such a combination of activities will provide a high level of confidence that the structural and leak integrity of the piping systems will be maintained.

Underground Piping and Tanks - Piping and tanks that are below grade and that may or may not be in direct contact with soil or concrete*. This includes piping and tanks that are directly buried and those that are embedded in concrete or located in underground concrete vaults, tunnels, or guard pipes.

* Note: NUREG 1801 (GALL-Rev 2) Section XI.M41 "Buried and Underground Piping and Tanks" makes the following distinction: "Briefly, buried piping and tanks are in direct contact with soil or concrete (e.g., a wall penetration). Underground piping and tanks are below grade but are contained within a tunnel or vault such that they are in contact with air and are located where access for inspection is restricted."

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E. CORROSION OF METAL PIPE

As coatings become damaged as a result of holiday formation, coal tar enamel embrittlement, tape wrap disbonding, etc., buried piping is directly exposed to soil. Without effective cathodic protection there is increased potential for external corrosion of the metal pipe.

Corrosion mechanisms of metals in buried pipe can be categorized in three broad categories:

1. Wall thinning: This category encompasses electrochemical effects that typically result in general wall loss or local wall loss such as pitting, general corrosion, galvanic corrosion, crevice corrosion, microbiologically influenced corrosion, erosion-corrosion, and preferential weld attack (grooving).

2. Environmental cracking: This category encompasses inter-granular or trans-granular cracks such as stress corrosion cracking, hydrogen induced cracking, and fatigue cracking.

3. Metallurgical effects: This category encompasses all degradation effects that cause a change to the metal microstructure or its mechanical properties.

F. CURRENT INDUSTRY EFFORTS

The industry, under the Nuclear Energy Institute's (NEI) leadership, established in the summer of 2009 the Buried Piping Industry Task Force (BPITF) that is composed of NEI, Electric Power Research Institute (EPRI), Institute of Nuclear Power Operations (INPO), American Nuclear Insurers (ANI), and Utility representatives. The BPITF developed the Nuclear Strategic Issues Advisory Committee (NSIAC) Buried Piping Integrity Initiative (approved by the industry's chief nuclear officers in November 2009, Reference 2) and the associated NEI 09-14, "Guideline for the Management of Buried Piping Integrity" (January 2010, Reference 3). The scope of the initiative includes all piping that is below grade, contains any fluid, and is in direct contact with the soil. The initiative was later submitted to the NRC via a letter from NEI (Reference 4).

However, and as a result of more recent industry operating experience at Oyster Creek and Vermont Yankee, the Buried Piping Integrity Initiative has been revised by the BPITF to also include underground piping and tanks that are outside of a building and below grade (whether or not they are in direct contact with the soil) if they are safety related or contain licensed material or are known to be contaminated with licensed material. The Buried Piping Integrity Initiative was renamed as the "Underground Piping and Tanks Integrity Initiative"; this was issued in September 2010.

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The initiative includes commitments for developing an inspection or condition assessment plan by June 30, 2011 for the initial buried piping scope and by December 31, 2012 for the added underground components scope of the initiative. The plan is to provide reasonable assurance of integrity of the associated components and shall include the following key attributes:

- Identification of underground (below grade and buried) piping and tanks to be assessed.
- Potential inspection/assessment techniques .
- Inspection/assessment schedule for underground components based on risk ranking and prioritization,
- Assessment of cathodic protection, if applicable.

G. CURRENT ENTERGY EFFORTS

Scope was identified and risk ranking criteria were developed to help the Entergy Fleet prioritize the inspections of underground pipes and components subject to degradation initiating from either the inside of the pipe (ID initiated), or the outside of the pipe (OD initiated), or both acting in combination. Impact assessment (based on safety, public risk and economics) and corrosion risk assessment (based on soil resistivity, drainage, material and cathodic protection/coating) were initially completed to determine an inspection priority (high, medium, low). The prioritization is determined by the use of a risk matrix that rates the likelihood of failure against the consequences of failure for a given system, structure, or component (SSC) location. Since radiological SSCs were by definition considered high risk, these were further risk ranked relative to one another and characterized as high-high, high-medium, or high-low risk.

The required inspections are selected depending upon the risk ranking. Those components and structures ranked the highest will be addressed with a higher priority and will be examined more extensively. The components and structures ranked in the medium and lowest category may be candidates for initial deferral.

As there are currently no industry guidelines for determining and achieving "Reasonable Assurance (RA) of Integrity" for inspected SSCs, Entergy in coordination with Exelon developed RA guidelines (Reference 9) that will be complied with by both companies. The guidelines emphasize that "Assurance of Integrity" in underground commodities is obtained when a combination of a Fitness-for-Service engineering evaluation, indirect inspections, direct examinations, and remediation, if necessary, is performed. Such a combination of activities will provide a high level of confidence that the structural and/or leakage integrity of the underground SSCs will be maintained.

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The RA guidelines establish methods for grouping of similarly designed and constructed piping lines and then prioritizing them for inspection. The RA guidelines provide minimum requirements for indirect inspection and direct examination of piping as well as post assessment techniques to establish Reasonable Assurance of Integrity.

The Entergy-Exelon guidelines for RA are currently being reviewed by an EPRI Technical Advisory Group (TAG), of which Entergy is a member, for use across the industry and for inclusion in the upcoming revision to NEI 09-14.

H. INSPECTION STRATEGY AND METHODOLOGIES

Detailed descriptions and discussions have been provided for the various available inspection/examination techniques and tools for buried piping and tanks. These can be found in EPRI Report IR-2010-409 (Reference 12). Specific recommended Inspection/examination methodologies for buried pipes and tanks are summarized herein.

Preferred Inspection Methodologies for Piping

Option 1: Use of Internal Direct Examination Pig

In-line pipeline examination provides the most accurate means of mapping the wall's thickness condition. As a result the use of in-line examination plays an important role in developing reasonable assurance of integrity.

These instrumented vehicles (called pigs) require access and possibly exit points in the piping system to enable deployment. Additionally, the deployment of the vehicle is best suited to certain piping configurations that should be assessed and determined prior to use of this method (Reference 12).

Option 2: Use of Guided Wave Indirect Inspection

The guided wave approach provides rapid assessment of wall loss over relatively long runs of pipe. The guided wave inspection may be performed without taking the process pipe out-of-service. The guided wave inspection is limited to approximately 50 feet of pipe in either direction, and is limited to detecting pits and remaining wall thickness. Readings beyond a flange cannot be performed and elbows reduce the effectiveness of the signal. Guided wave techniques are described in EPRI Report 1019115, "Buried Pipe Guided Wave Examination Reference Document" (Reference 13).

The guided wave technique has value for inspecting piping near penetrations to buildings.

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The locations for performing inspection will be based on the results of a soil survey to determine the most adverse locations, together with above grade survey to detect potential coating damage, to determine inspection locations.

At inspection locations, local NDE of the pipe shall be performed together with guided wave inspection.

Option 3: Use of Local Pipe Direct Examination NDE
Pipe direct examination NDE utilizes direct measurement at exposed sections of the pipe. The locations for performing examinations will be based on the results of a soil survey to determine the most adverse locations, together with above grade survey, to detect potential coating damage to determine examination locations.

Pipe Line Grouping
Grouping of pipes for inspection is recommended in order to reduce the overall inspection cost and duration. Pipes can be grouped based on attributes such as pipe material, coating type, soil/backfill, age, operating parameters, size, process fluid, cathodic protection, and others. The specific grouping parameters will depend on the specific features of the components. The grouping of pipes with similar attributes may allow the results of the inspection to be extrapolated from one pipe to the others in the group, therefore reducing the number of excavations and cost. Completed direct examinations and results may be able to be applied to the entire underground line and to other pipes in the grouping. The Fitness for-Service Engineering Evaluation will be able to use this information to calculate remaining life and the time until the next scheduled inspection.

Guidelines relative to grouping for inspection are outlined within Attachment B of Reference 9, "Fleet Guidance for the Determination of Reasonable Assurance for Structural and/or Leakage Integrity for High Risk Underground Piping".

8 groups were identified for the site:

GROUP	GROUP SELECTION ATTRIBUTES
A	Carbon steel pipe, coated and wrapped
B	Stainless steel pipe, coated and wrapped
C	Carbon steel pipe, coated and wrapped, cement ID lined
D	Carbon steel pipe, in concrete, no coating
E	Steel pipe, carbon steel outer guard pipe
F	Copper tubing/piping
G	Carbon steel pipe, insulated, no coating
H	Other

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Pipe Line Inspection Locations

Excavations should be performed to maximize the potential to obtain information for the subject pipe and for other pipes that can be exposed in the same excavation. Several pipes being excavated in one location is preferred, but not required. Excavations shall be large enough such that a direct examination shall assess a minimum 10 feet length of pipe, if feasible. Inspection locations should be selected considering the risk ranking criteria and other information such as:

- Results of risk ranking. Inspections should be distributed among the higher ranked locations.
- Locations where piping goes through penetrations into vaults or other structures. This includes pipe that is both encased and not encased in concrete.
- Locations where the pipe enters or exits the soil.
- Locations of dissimilar materials in contact without use of insulating kits.
- Locations where the pipe enters or exits water.
- Results of ID visual examinations.
- Results of CP surveys and coating surveys. Select locations where CP and coating surveys cannot be performed or are questionable.
- Results of any remote inspections that have been performed.
- Plant or industry operating experience.
- Trending of past inspection results.
- Opportunistic inspections during maintenance activities (e.g., open valves).
- Cost and access can be considered when the risk rankings are similar.

The inspection and examination to be performed on an underground pipe or tank should be defined based on the expectation of susceptibility and the risk ranking results. The decision and basis for the decision on for inspections and examinations should be documented.

Specific guidelines for inspection of buried piping are outlined within Attachment B of Reference 9, "Fleet Guidance for the Determination of Reasonable Assurance for Structural and/or Leakage Integrity for High Risk Underground Piping".

A Component Inspection Data Sheet (Appendix B) will be completed for each component to be inspected and attached to the associated work order.

Preferred Inspection of Tanks

Tank inspection should be performed on a prescribed inspection schedule as outlined in a PM, or as required by existing plant or state programs. The tank inspection should address the wall thickness and utilize inspection data to

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determine corrosion rate. Inspection methodologies are outlined within Reference 12.

Strategy for Exterior Building and Storm Drains

Relative to reasonable assurance of integrity of exterior building and storm drains, the inspection strategy should be performed as a plant facilities' action to inspect for clogging, debris, and basic functionality. Establishing basic functionality of storm drains is important since the design of such systems, often utilizing bell and spigot concrete or cast ductile iron pipe, can be susceptible to leakage as a result of joint separation from settlement or soil erosion undermining the support of the pipe.

The site will establish a PM frequency for this SSC. As an example, an initial inspection frequency can be established and adjusted based on the results of inspection for continuity. If the pipe has been in place for a number of years and has not be subjected to ground surface disturbances, then a longer inspection period beyond the initial inspection could be warranted and justified. Drainage piping subject to local vicinity excavation from site construction activities, haul path loading, or soil erosion (as examples), may warrant a shorter inspection period to ensure continuity of flow. PM frequency to ensure flow path (removing any clogging from site debris) may be warranted on a shorter cycle to that for establishing continuity, based on specific site conditions.

Mitigation and leak management strategies should be implemented if the drains are found to be leaking or severely degraded.

Strategy for In-Building Floor Drains

In-building floor drains located at the lower elevations of buildings and structures, and accessible and inaccessible tunnels and vaults are typically embedded within the structures concrete and have soil on the outside of the structure or in direct contact with the soil.

Relative to reasonable assurance of integrity of interior floor drains, the strategy should be performed to inspect for clogging, debris, and ensure basic continuity and functionality. Provided the interior floor drains are protected with a floor grate, the potential for repeat clogging is effectively eliminated. For floor drains embedded within the structures concrete, the assurance of integrity inspection should be considered as a one-time requirement. For floor drains touching soil (i.e. with potential for exterior corrosion), a repeat inspection is required. A 5-year cycle is recommended for this PM, unless justification of a longer inspection cycle is provided.

Appropriate mitigation and leak management strategies shall be implemented if the floor drains are found to be leaking or severely degraded. Such mitigation strategies may include sealing of the floor drain and implementing an alternate drainage scheme, or repair.

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Strategy for Cathodic Protection

An effective cathodic protection system is essential to minimize underground piping corrosion. However, most Entergy plant's cathodic protection systems were initially installed during plant construction and were rarely maintained, and in some cases abandoned thereafter rendering the systems incapable of providing the needed corrosion protection. In addition, many site modifications rendering the underground piping network even more complex were implemented since initial plant construction without evaluating the required potential updates to the system. Therefore, it is recommended to conduct an Area Potential and Earth Current (APEC) Survey to analyze and implement needed improvements to the corrosion control (coatings) and cathodic protection effectiveness of the station.

Once the system modifications are implemented, the system will be maintained via recurring PMs based on vendor recommendations.

I. OPERATING EXPERIENCE (OE)

The Underground Piping and Tanks Engineering Team examined operating experience via condition report LO-HQNLO-2008-15. This CR examined Entergy, nuclear industry, and petro-chemical industry events relating to underground and buried piping. Each site subsequently proposed inspection locations to verify underground/buried equipment fidelity (e.g. LO-HQNLO-2008-15 CA 387 through 395).

For this inspection plan, the OE lessons-learned examined are summarized below in the form of inspection goals (e.g., items to consider when making detailed inspection procedures) and inspection criteria. In general, LO-HQNLO-2008-15 revealed that most underground and buried piping failures dealt primarily with legacy issues (e.g., equipment not being originally installed, operated, or maintained properly) and not pipeline aging per se. By using this insight, smarter inspection goals and criteria have been developed for use in inspection procedures.

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Table 1 - Inspection Goals

Goal	Basis	Reference
1. Attempt to select final inspection site that reveals buried pipe penetrations into buildings or complex installations.	OE revealed that building penetration challenged pipe integrity.	OE30462
2. Determine if available cathodic protection has been operated properly prior to performing inspection. This includes proper voltages, run time, and periodic maintenance.	OE has revealed that many cathodic protection systems are improperly installed or improperly operated. Making this determination prior to excavation can prepare the inspection team for needed corrective action and operability contingencies.	OE28063 OE27897 CR-PNP-2007-21 OE7067 CR-ANO-C-2008-1734
3. Be alert for potential mechanical sneak circuits (e.g. piping failures caused by more than one stressor, or a not-so-obvious stressor) that may exist in the inspection path. These include: • Previous leakage events that change underground soil conditions and create failures in adjacent equipment. • Improper material pairing (e.g. aluminum on concrete base causing external corrosion) • Potential stray current effects from nearby equipment impacting failed equipment. • External inspection of line with high internal stressors such as FAC (condensate return to condenser). • Improper construction of protective trenches leading to barrier breach after line failure. • Improper cleaning of trench drains after construction leading to barrier breach after line failure.	Approximately 35% of events in LO-HQNLO-2008-00015 were caused by multiple stressors that defeated in-place barriers. These events can be characterized as: 1. Proximity failures (one event causing damage to adjacent equipment. This could be one leak that causes another leak or stray current). 2. Bypass events (evaporation and subsequent condensation outside the barrier, moat/drain cleanliness issues leading to defeated barrier, internal versus external corrosion as the main driver). Note that Design, Construction, Ops, and Maintenance activities have initiated events.	OE 5305 OE12844 OE13794 OE14132 OE15323 OE21958 OE25092 OE25410 OE26571 OE29733 OE30462 OE30589 OE31178 OE31269 SER 4-81 DOT experience

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Goal	Basis	Reference
4. Utilize underground construction photographs (if available).	Such photographs can provide insights on potential failure locations and help prepare for contingency planning.	OE30589
5. Examine line history and operating events that may provide equipment integrity insights.	Some OE shows that lines may have been used in multiple ways and/or have significantly deviated from normal operation. These deltas could cause unexpected line integrity performance.	OE13794 OE12844 OE21958 OE15323
6. Consider soil pH measurements at several depths.	Soil can experience surface contamination from salt and other chemicals. Taking pH measurements at several depths can help determine the potential for change.	OE12844 OE13794 License Renewal RAIs
7. Consider water table changes and impact on corrosion rates.	Soil chemistry changes (depending on soil moisture content) and corrosion rates can significantly increase with intermittent wetting and drying.	Corrosion Principles + Water Table profiles.

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Table 2 – Generic Inspection Criteria

Inspection Criteria	Basis	Reference
1. Ensure buried lines meet proper depths for adequate freeze protection. This can be accomplished by visual verification of depth, and visual verification for lack of freeze/thaw damage.	Some pipe failures have occurred from improper burial depths.	CR-IP3-2009-00584
2. Inspect coatings for holidays and proper installation. Consider using License Renewal coating removal guidance from GALL Rev 2, which are based on line length and needed inspection frequencies. Examine the line for both general corrosion and pitting corrosion, and attempt to take UT measurements (or alternate thickness measurements) where practical. The acceptance criterion for pipe operability is primarily based on minimum wall thickness since buried piping is well supported by earth. However, gross pitting or general corrosion may require structural analysis.	Some coating failures have resulted from aging. However, most coating failures result from improper installation (poor backfill, improper preparation, poor care, not installed, or improper coating choice).	OE9163 OE12698 OE17575 OE18596 OE23565 OE25997 OE27146 OE27897 OE29020 OE29733 OE29126 OE30927 DOT
3. Verify proper material installation according to original and/or revised specification.	Improper design or construction have lead to improper material installation	OE28063 OE16189 OE14585
4. Verify proper backfill according to original and/or revised specification.	Course backfill has caused coating failures.	OE27146 OE29126

J. PROGRAM INTERFACES

- IPEC Groundwater Monitoring Program per EN-CY-111
- IPEC Flow Accelerated Corrosion (FAC) Program per EN-DC-315
- IPEC Microbiological Influence Corrosion (MIC) Program per EN-DC-340 and SEP-SW-001
- IPEC Fire Protection Program per EN-DC-330

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K. APPENDICES

APPENDIX A: Piping Inspection Information
APPENDIX B: Tank Inspection Information
APPENDIX C: Sump Inspection Information
APPENDIX D: Drain Inspection Information
APPENDIX E: Cathodic Protection PM Information
APPENDIX F: Component Inspection Data Sheet (Typical)
APPENDIX G: Integrated Schedule
APPENDIX H: Program Drawings

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APPENDIX A
INSPECTION EXCEL SPREADSHEET

1. Inspection Strategy: A combination of indirect inspections and direct examinations will be performed in accordance with the "Fleet Guidance for the Determination of Reasonable Assurance for Structural and/or Leakage Integrity for High Risk Underground Piping" (Reference 9). The results of the indirect inspections (e.g. above ground DCVG and/or guided wave) may cause the prescribed location above to be moved.

   Describe the technique(s) that will be used and where (e.g., guided wave at wall penetrations and then coating inspection; NDE and guided wave at excavation point; above ground DCVG and then coating inspection; NDE and guided wave at excavation point). If above ground inspection is not relevant, describe contingency.

2. Inspection Location: e.g., 20ft south of the CST or the building

3. Location Justification: Explain why the actual 10ft location is selected (e.g. access, shoring, depth, CP protection). Justify if any one of the uncovered lines is not being directly examined.

4. Excavation #: e.g., EXC1, EXC2, EXC3, etc.

5. In-Line Insoection #: e.g., ILI1, ILI2, ILI3, etc.

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
1 / RW	30-RW-1	NON-RAD	N/A	C / PIPE 4	LOW	YES	EL. 6'-6" (0.5 ft)	150 ft	IP1 Raw Water Pump 11 Discharge Piping
1SR480	1381108 1381109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined pipe
1 / RW	30-RW-2	NON-RAD	N/A	C / PIPE 3	LOW	YES	EL. 6'-6" (0.5 ft)	150 ft	IP1 Raw Water Pump 12 Discharge Piping
1SR480	1381108 1381109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined pipe

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
0 / UFO	6-UW-1	RAD	N/A	6 / PIPE 6	59 (H-M)	NO	EL. 93' (7 ft)	138 ft	2-inch Waster transfer Line from #2 to #1
1/8inCO	1/8inSS-1/8inCO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	In Guard Pipe
2 / SD	3-SD-1	RAD	N/A	6 / PIPE 3	58 (H-M)	NO	EL. 67' 6" to 92' (2 ft to 8 ft)	88 ft	3-inch SG&D from #2 to #3
1/8inSS	3-SD-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	In Guard Pipe
2 / AFW	10-AFW-150S	RAD	N/A	A / PIPE 4	49 (H-M)	YES	EL. 11'-9" (5 ft)	330 ft	10-inch Line 150S, CST Supply to #FW Pumps' location. Buried Wave inspection (Dept. 2068) indicated potential moderate corrosion risk.
8321-2063	8321-2063 8321-2064	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cathodic protection system to protect buried lines to/from the CST/AFP Bldg at the plant elevation to be installed in 3Q2011
2 / AFW	8-AFW-150S	RAD	N/A	A / PIPE 4	49 (H-M)	YES	EL. 11'-9" (5 ft)	322 ft	8-inch Line 150S, Condensate return from AFW Pumps to CST. Through wall failure occurred in Feb. 2009
8321-2063	8321-2063 8321-2064	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cathodic protection system to protect buried lines to/from the CST/AFP Bldg at the plant elevation to be installed in 3Q2011
2 / AFW	10-AFW-CF-2	RAD	N/A	A / PIPE 4	49 (H-L)	YES	EL. 15'-3" (9 ft)	340 ft	10-inch CST overflow line to MH-, corrugated metal pipe. Sloped line from CST to AFP Bldg. (R. 72'-0" to EL. 15'-3").
8321-2063	8321-2063 8321-2064	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cathodic protection system to protect buried lines to/from the CST/AFP Bldg at the plant elevation to be installed in 3Q2011
2 / AFW	8-AFW-CF-1	RAD	N/A	A / PIPE 4	27 (H-L)	YES	EL. 80' to EL. 72' (0 to 7 ft)	7 ft vert. & 8 horiz.	8-inch CST overflow pipe to ease exit to 10-inch. Straight pipe (i.e., not corrugated metal pipe) from ground port at EL. 80' to horizontal expansion to 10-in @ EL. 79'-0" (base of the CST).
8321-2063	8321-2063 8321-2064	Inspect coating, direct UT	N/A	N/A	N/A	N/A	N/A	N/A	
2 / WCPS	1.5-WCP-1	NON-RAD	N/A	B / PIPE 4	HIGH	YES	EL. 12'-6" (5 ft)	N/A	1½ - inch Weld Channel

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
									Preservation Line
9321-4726	9321-2096 9321-7003	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-21	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-6" to 1'-0" (9.5 to 13.5 ft)	200 ft	21 CWP discharge up to transition to 96-inch OD piping. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap)
9321-4726	9321-3108 9321-2506	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-21	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-5" to EL. 3'-0" (-05'-5" to 12')	25 ft	21 CWP discharge piping from transition to 96-inch dia. piping to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap)
9321-4726	9321-1108 9321-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-22	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-6" to 1'-0" (9.5 to 13.5 ft)	200 ft	22 CWP discharge up to transition to 96-inch OD piping. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap)
9321-4726	9321-1108 9321-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-22	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-5" to EL. 3'-0" (-05'-5" to 12')	25 ft	22 CWP discharge piping from transition to 96-inch dia. piping to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap)
9321-4726	9321-1108 9321-2006	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-23	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-6" to 1'-0" (9.5 to 13.5 ft)	200 ft	23 CWP discharge up to transition to 96-inch OD piping. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap)
9321-4726	9321-1108 9321-4006	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-23	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-5" to EL. 3'-0" (-05'-5" to 12')	25 ft	23 CWP discharge piping from transition to 96-inch dia. piping to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap)
9321-4726	9321-1108	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	9321-0008								
0 / CW	84-CWS-24	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" to 1'-9" (6.5 to 13.5 ft)	250 ft	24 CWP discharge up to transition to 96-inch OD piping. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap)
9321-0008	9321-1108 9321-0008	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
0 / CW	96-CWS-24	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-0" to EL. 3'-0" (-18"-3' to 10')	25 ft	24 CWP discharge piping from transition to 96 inch dia piping to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap)
9321-0008	9321-1108 9321-0008	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	84-CWS-22	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" to 1'-9" (6.5 to 13.5 ft)	600 ft	22 CWP discharge up to transition to 96 inch OD piping. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap)
9321-0008	9321-1108 9321-0008	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	96-CWS-22	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-0" to EL. 3'-0" (-18"-3' to 10')	25 ft	22 CWP discharge piping from transition to 96 inch dia piping to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap)
9321-0008	9321-1108 9321-0008	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
4 / CW	84-CWS-20	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" to 1'-9" (6.5 to 13.5 ft)	250 ft	20 CWP discharge up to transition to 96 inch OD piping. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap)
9321-0008	9321-1108 9321-0008	ID VISUAL							
4 / CW	96-CWS-20	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-0" to EL. 3'-0" (-18"-3' to 10')	25 ft	20 CWP discharge piping from transition to 96 inch dia piping to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap)
9321-0008	9321-1108 9321-0008	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
7 / CW		NON-RAD	N/A	A / PIPE 4	HIGH	YES			18-inch City Water supply header

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
[illegible]	[illegible]	N/A	N/A	A / PIPE 4	HIGH	YES			16 inch City Water header
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CYM	3-CYM-6-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 80' to EL. 13' (6 ft to 67 ft)	54 ft	8 inch City Water Line 1502 From Diesel Tunnel to Yard elevation
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CYM	3-CYM-6-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 13' to EL. 10'-6" (67 to 73.5 ft)	570 ft	8 inch City Water Line 1502 to AFP Building (Yard piping)
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / EDG	3-EDGFO-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 76'-6" (< 1 ft)	20 ft (3 EDGs)	EDG Fuel Oil Equalizing Line – 2" Line is less than 1 ft below concrete slab and the has shallow sand cover
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Piping connected to the tank is included in the tank integrity test (annual)
2 / EDG	4-EDGFO-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 76'-6" (< 1 ft)	60 ft (3 EDGs)	EDG Fuel Oil Fill Line – 4" Line is less than 1 ft below concrete slab and the has shallow sand cover
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Piping connected to the tank is included in the tank integrity test (annual)
2 / EDG	4-EDGFO-3	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 76'-6" (< 1 ft)	30 ft (3 EDGs)	EDG FOST Vent – 4" Line is less than 1 ft below concrete slab and the has shallow sand cover
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Piping connected to the tank is included in the tank integrity test (annual)
2 / EDG	Multi-EDGFO-1	NON-RAD	N/A	A / PIPE 8	HIGH	YES	EL. 76' (tank OD) (1 ft)	30 ft (3 EDGs)	EDG FOST Tank Openings – Misc. (Access port, pump column, etc). All tank connections penetrating the slab are less about 1 ft long, and has a shallow sand cover
[illegible]	[illegible]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All connections to the tank are included in the tank integrity test (annual)

APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
2 / IA	1-IA-14-1156	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 11'-9" (7 ft)	BMC ft	110 inch IA Supply to Intake Structure
0221-2078	8221-2113	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / IA	2-IA-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 11'-9" (7 ft)	215	8 inch IA Supply to the Yard FP Bldg
8221-2078	8221-2113	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / IA	2-IA-3	NON-RAD	N/A	A / PIPE 4	HIGH	YES			IA Supply to VC
8221-2078		N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / SW	2-SW(2)-14-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (5 to 4.75 ft)	4 ft	21 SWP 14-inch discharge piping in strainer pit from floor penetration to 24-inch manifold
8221-2102	8221-2106 8221-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW(2)-14-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (5 to 4.75 ft)	4 ft	22 SWP 14-inch discharge piping in strainer pit from floor penetration to 24-inch manifold
8221-2102	8221-2106 8221-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW(2)-14-3	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (5 to 4.75 ft)	8 ft	23 SWP 14-inch discharge piping in strainer pit from floor penetration to 24-inch manifold
8221-2102	8221-2106 8221-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW(2)-14-4	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (5 to 4.75 ft)	8 ft	24 SWP 14-inch discharge piping in strainer pit from floor penetration to 24-inch manifold
8221-2102	8221-2106 8221-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW(2)-14-5	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (5 to 4.75 ft)	4 ft	25 SWP 14-inch discharge piping in strainer pit from floor penetration to 24-inch manifold
8221-2102	8221-2106 8221-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW(2)-14-6	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (5 to 4.75 ft)	4 ft	26 SWP 14-inch discharge piping in strainer pit from floor penetration to 24-inch manifold
8221-2102	8221-2106	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	9321-2107								
2 / SW	2-SW-600-24-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-0" (4.75 ft)	11.5 ft	21/22/23 SWP discharge manifold (24-inch)
9321-2702	9321-2106 9321-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW-600-24-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-0" (4.75 ft)	11.5 ft	24/25/26 SWP discharge manifold (24-inch)
9321-2702	9321-2106 9321-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW-CW-6-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5.5' to EL. 1'-0" (0.25 ft - 4.75 ft)	4 ft	6 inch vertical branch off SW Line 408 for Circ Water Pump cooling
9321-2702	9321-2106 9321-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	2-SW-CW-6-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5.5' to EL. 1'-0" (0.25 ft - 4.75 ft)	4 ft	6 inch vertical branch off SW Line 408 for Circ Water Pump cooling
9321-2702	9321-2106 9321-2107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	24-SW-408	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-0" (14 ft)	69 ft	SW Main Supply Header Line 408. From discharge manifold, run east to the TB, 90 deg turn north to end of run @ EL. 1'-0"
9321-2702	9321-2706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	24-SW-408	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-0" (14 ft)	106 ft	SW Main Supply Header Line 408. Traverse all run east to the TB, 90 deg turn north to end of run @ EL. 1'-0"
9321-2702	9321-2706	N/A	N/A	N/A	N/A	N/A	N/A	99 ft	Cement lined, carbon steel pipe
2 / SW	24-SW-408	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-6" (9.5 - 7 ft)	100 ft	SW Main Supply Header Line 408. Vertical rise from EL. 1'-0" to EL. 8'-6", run from EL. 8'-6" to EL. 11'-0" (NE corner of TB)
9321-2702	9321-2706 9321-2708	DIRECT VISUAL, DIRECT & CIG UT	WEST WALL OF TURB BLDG	EXPANDED EXCAVATION DURING MOD INSTALLATION	EXC2-2	NO	Sch 10	N/A	Cement lined, carbon steel pipe See drawing for EXC2-2 in Appendix H
2 / SW	24-SW-408	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-6" (9.5 - 7 ft)	95 ft	SW Main Supply Header Line 408. Vertical rise from EL. 1'-0" to EL. 8'-6", run from EL. 8'-6" to EL. 11'-0" (NE corner of TB)

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING PAID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
0421-6702	0321-2036 0321-2016	DIRECT VISUAL DEFECT & (incl UT)	WEST WALL OF TURB BLDG	EXPANDED EXCAVATION DURING MOD INSTALLATION	EXCA-2	NO	2001Q	N/A	Cement lined, carbon steel pipe See drawing for EXCA-2 in Appendix H
2 / SW	24-SW-409	NON-RAD	N/A	C / PIPE 3	HIGH	YES	EL. 19'-9" (7 ~ 8.5 ft)	250 ft	SW Main Supply Header Line 409 Stayed run from NE corner of TB, EL. 11'-0" to EL. 12' -0", vertical rise along external wall of the PAB in Yard
0321-2002	0321-2036 0421-2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	24-SW-409	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" (7 ~ 8.5 ft)	250 ft	SW Main Supply Header Line 409 Stayed run from NE corner of TB, EL. 11'-0" to EL. 12'-6", vertical rise along external wall of the PAB in Yard
0421-2702	0321-2036 0321-2706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	24-SW-409	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" (8.5 ft)	136 ft	SW Return Line 409 to Discharge Canal Piping at EL. 12'-6"
0421-2702	0321-2036 0421-2706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	24-SW-409	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" (8.5 ft)	46 ft	SW Return Line 409 to Discharge Canal, from deg from EL. 12'-6" to EL. 6'-6", and westerly run
0421-6702	0321-2036 0321-2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	16-SW-483	NON-RAD	N/A	C / PIPE 3	HIGH	YES	EL. 11'-2" (4'-10")	140 ft	16-inch SW Return Line 483 from EXCa-3 to Line 409
0421-2702	0321-2016 0321-2706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	8-SW-1704-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" (8 ft)	155 ft	8-inch SW Supply Line 1704 (from Line 409) to IAEC HXs
0421-2702	0321-2016 0321-2036 0321-2706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	8-SW-1705-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" (8 ft)	140 ft	8-inch SW Supply Line 1705 (from Line 409) to IAEC HXs
0421-2702	0321-2016 0321-2036	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (O/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	9321-2700								
2 / SW	3-SW-1703-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 13'-0" (6 ft)	126 ft	3-inch SW Return Line 1703 from MOD 1904 to Discharge Line 405.
9321-2702	9321-2701 9321-2218 9321-2700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	10-SW-410-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-0" (10 ft)	60 ft	10-inch SW Supply Line 410 to TB from Line 409 – to valve pit
9321-2702	9321-2700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	10-SW-410-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-0" (10 ft)	45 ft	10-inch SW Supply Line 410 to TB from Line 409 – to valve pit
9321-2702	9321-2367	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	10-SW-410-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-10" (6 ft)	64 ft	10-inch SW Supply to TB from Valve Pit to the Turbine Building
9321-2702	9321-2367	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	18-SW-1878-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-0" (10 ft)	89 ft	18-inch SW Supply Line 1878 to TB, from Line 409 – to valve pit
9321-2702	9321-2366	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	18-SW-1878-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 8'-0" (10 ft)	89 ft	18-inch SW Supply Line 1878 to TB, from Line 409 – to valve pit
9321-2702	9321-2700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / SW	18-SW-1878-3	NON-RAD	N/A	D / PIPE 4	HIGH	YES	EL. 8'-30" (8 ft)	86 ft	18-inch SW Supply to TB from Valve Pit to the Turbine Building
9321-2702	9321-2367	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
2 / CW	3-CW-3	NON-RAD	N/A	A / PIPE 3	MEDIUM	YES	N/A	N/A	Yard 10-inch FP Branch
1900-2	9321-4298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	3-CW-3	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	N/A	N/A	Yard 10-inch FP Branch
1900-2	9321-4298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	3-CW-7	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	N/A	N/A	Yard 8 inch FP Branch
1900-2	9321-4298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	3-CW-8	NON-RAD	N/A	A / PIPE 3	MEDIUM	YES	N/A	N/A	Yard 4 inch FP Branch
1900-2	9321-4298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	3-CW-2	NON-RAD	N/A	A / PIPE 3	MEDIUM	YES	N/A	N/A	Yard 6 inch FP Branch
1900-2	9321-4298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / CW	3-CW-4	NON-RAD	N/A	A / PIPE 3	MEDIUM	YES	N/A	N/A	Yard 8 inch FP Branch
1900-2	9321-4298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
2 / FP	10-FP-1	NON-RAD	N/A	A / PIPE A	MEDIUM	YES			10-inch FP Main Header
8321	8321-4008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / FP	10-FP-1	NON-RAD	N/A	A / PIPE A	MEDIUM	YES			10-inch FP Main Header
8321	8321-4008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / SA	8-SA-1	NON-RAD	N/A	A / PIPE A	LOW	YES	EL. 12'-6" (8.8 ft)	186 ft	8-inch Station Air Line to PAB
8321 #076	8321-2713 8321-4028	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2 / SA	3-SA-2	NON-RAD	N/A	A / PIPE a	LOW	YES	EL. 7'-0" (3.3)	86 ft	3-inch Station Air Line to Intake Structure
8321-F-2243	8321-F-2713 8321-F-2736	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
3 / 59	10-SI-181-1	RAD	N/A	B / PIPE 3	56 (H-M)	YES	EL. 74'-0" (5 ft)	24 ft	RWST supply to Cont. Spray Pump suction, Line 181. From ground penetration at tank base, 90 deg elbow and horizontal run below grade at EL. 74' (approx.)
0321-P-2703	0321-P-2613 0321-P-2615	N/A	N/A	N/A	N/A	NO	N/A	N/A	
3 / 58	10-SI-181-2	RAD	N/A	B / PIPE 4	58 (H-M)	YES	EL. 74' to EL. 49' (5 ft)	39 ft	RWST supply to Cont. Spray Pump suction, Line 181. Sloped portion of Line 181 from EL. 74' (approx) to EL. 49' (approx)
0321-P-2703	0321-P-2613 0321-P-2615	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / 60	10-SI-181-3	RAD	N/A	B / PIPE 4	59 (H-M)	YES	EL. 49' (5 ft)	84 ft	RWST supply to Cont. Spray Pump suction, Line 181. Run of piping in southerly direction toward WHUT PH, @ EL. 49' (approx)
0321-P-2703	0321-P-2613 0321-P-2627	DIRECT VISUAL, DIRECT & CIVIL	N/A	High PRI, mult. Pipes	EXC1-G	N/A	N/A	N/A	See EXC1-G drawing in Appendix H
3 / 58	10-SI-181-4	RAD	N/A	B / PIPE 4	58 (H-M)	YES	EL. 47'-6" (5 ft)	93 ft	RWST supply to Cont. Spray Pump suction, Line 181. Run of piping in westerly direction toward FSB @ EL. 47'-6" (approx)
0321-P-2703	0321-P-2613 0321-P-2627	DIRECT VISUAL, DIRECT & CIVIL	N/A	High PRI, mult. Pipes	EXC1-G	N/A	N/A	N/A	See EXC1-G drawing in Appendix H
3 / 59	10-SI-181-5	RAD	N/A	B / PIPE 3	56 (H-M)	YES	EL. 74'-0" (5 ft)	20 ft	RWST supply to SI Pump suction, Line 181. From ground penetration, 90 deg elbow and horizontal run below grade at EL. 74' (approx.)
0321-P-2703	0321-P-2613 0321-P-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	26323								
0 / SI	10-SI-155-2	RAD	N/A	B / PIPE 4	39 (H-M)	YES	EL. 73'-9" to EL. 43' (-9 ft)	36 ft	RWST supply to SI Pump suction, Line 155. Sloped portion of Line 191 from EL. 73' (approx) to EL. 43' (approx)
0521-P-27003	0321-P-26013 0321-P-26019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0 / SI	10-SI-156-2	RAD	N/A	B / PIPE 4	39 (H-M)	YES	EL. 43' (-9 ft)	60 ft	RWST supply to SI Pump suction, Line 156. Run of piping in southerly direction toward WHUT Pit @ EL. 43' (approx).
0321-P-26019	0321-P-26013 0321-P-26020	DIRECT VISUAL, DIRECT & GW UT	N/A	High PRI, mult. Pipes	EXC1-3	N/A	N/A	N/A	See EXC1-3 drawing in Appendix H
0 / SI	10-SI-156-4	RAD	N/A	B / PIPE 4	39 (H-M)	YES	EL. 43'-9" (-9.5 ft)	91 ft	12-inch RWST supply to SI Pump suction, Line 156. Run of piping in westerly direction toward PJIB @ EL. 43'-9" (approx).
0321-P-26019	0321-P-26013 0321-P-26020	DIRECT VISUAL, DIRECT & GW UT	N/A	High PRI, mult. Pipes	EXC1-3	N/A	N/A	N/A	See EXC1-3 drawing in Appendix H
0 / SI	6-WD-252-2	RAD	N/A	B / PIPE 4	38 (H-M)	YES	EL. 74'-9" (-9 ft)	13 ft	6-inch RWST Overflow Line 252 to WHUT. From ground penetration, 90 deg elbow and horizontal run below grade at EL. 74' (approx.)
0521-P-27003	0321-P-26013 0321-P-26019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0 / SI	6-WD-252-2	RAD	N/A	B / PIPE 4	38 (H-M)	YES	EL. 74' to EL. 43' (-9 ft)	36 ft	6-inch RWST Overflow Line 252 to WHUT. Sloped portion of Line 191 from EL. 74' (approx) to EL. 43' (approx)
0521-P-27002	0321-P-26013 0321-P-26020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0 / SI	8-WD-252-3	RAD	N/A	B / PIPE 3	56 (H-M)	YES	EL. 43'	58 ft	8-inch RWST Overflow Line 252 to WHUT

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
							(5 ft)		Run of piping in southerly direction to WHUT Pit @ EL. 49' (approx).
8321-F-2561	8321-F-2561Q 8321-F-2562Q	DIRECT VISUAL, DIRECT & CHK LIT	N/A	High PRI, mod. Pipes	EXC1-S	N/A	N/A	N/A	See EXC1-S drawing in Appendix H
8 / SI	8-SI-183-1	RAD	N/A	B / PIPE 4	54 (H-M)	YES	EL. 74'-0" (5 ft)	21 ft	8-inch SI Pump return to RWST, Line 183. From ground penetration, 90 deg elbow and horizontal run below grade at EL. 74' (approx.)
8321-F-2564	8321-F-2563 8321-F-2562Q	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
8 / SI	8-SI-181-Q	RAD	N/A	B / PIPE 4	54 (H-M)	YES	EL. 74' to EL. 49' (5 ft)	36 ft	8-inch SI Pump return to RWST, Line 181. Sloped portion of Line 181 from EL. 74 (approx) to EL. 49' (approx)
8321-F-2563	8321-F-2563Q 8321-F-2562Q	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
8 / SI	8-SI-181-3	RAD	N/A	B / PIPE 4	54 (H-M)	YES	EL. 49' (5 ft)	66 ft	8-inch SI Pump return to RWST, Line 181. Run of piping in southerly direction toward WHUT Pit @ EL. 49' (approx).
8321-F-2564	8321-F-2563Q 8321-F-2562Q	DIRECT VISUAL, DIRECT & CHK LIT	N/A	High PRI, mod. Pipes	EXC1-S	N/A	N/A	N/A	See EXC1-S drawing in Appendix H
8 / SI	8-SI-181-4	RAD	N/A	B / PIPE 4	54 (H-M)	YES	EL. 47'-6" (6.5 ft)	84 ft	8-inch SI Pump return to RWST, Line 181. Run of piping in westerly direction toward PAB @ EL. 47'-6" (approx).
8321-F-2563	8321-F-2563Q 8321-F-2562Q	DIRECT VISUAL, DIRECT & CHK LIT	N/A	High PRI, mod. Pipes	EXC1-S	N/A	N/A	N/A	See EXC1-S drawing in Appendix H
8 / AFW	10-AFW-1070	RAD	N/A	A / PIPE 4	50 (H-M)	YES	EL. 47'-6" (7 ft)	86 ft	10 inch CST supply to AFP section, Line 1070. From ground penetration to EL. 11'-8", continuing to the perimeter of AFP Bldg.

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
9321-F-22188	9321-F-22873 9321-F-22883	DIRECT VISUAL, DIRECT & GW UT	YARD, NW CORNER OF AFP BLDG	High PRI	EXC2-9	NO	S2013	N/A	
1 / LWD	3-SGBD-1	RAD	N/A	G / PIPE 8	48 (H-M)	NO	EL. 48'-0" (6 ft)	660 ft	3-inch SG Continuous Blowdown to Unit 1 Blowdown Flash tank.
9321-F-22181	1662-8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CS in CEI outer containment pipe.
1 / AFW	6-AFW-1060	RAD	N/A	A / PIPE 4	47 (H-M)	YES	EL. 13'-0" (2 ft)	96 ft	6-inch AFP return to CST Line 1060
9321-F-22188	9321-F-22873 9321-F-22883	DIRECT VISUAL, DIRECT & GW UT	YARD, NW CORNER OF AFP BLDG	High PRI	EXC2-9	NO	S2013	N/A	
1 / LWD	2-LWD-4	RAD	N/A	E / PIPE 6	48 (H-M)	NO	6 ft	105 ft	2-inch Liquid waste drains from Unit 2 to Unit 1, cut and capped at Unit 1, in outer containment pipe.
9321-22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1 / ASD	6-ASD-1	RAD	N/A	G / PIPE 4	36 (H-M)	YES	EL. 12'-6" (6.7 ft)	220 ft	6-inch Aux Steam line from #1
9321-F-22873	9321-F-41043	N/A	N/A	N/A	N/A	NO	N/A	N/A	Buried portion (~220 ft heavily corroded, entire buried length replaced, line in-kind, July 2013).
1 / ASD	6-ASD-661-1	RAD	N/A	EG / PIPE 4	H(36)	NO	N/A	N/A	6-inch Aux Steam Line 661 (insulated and encased with 8-inch Aux. steam line 678 in 18" steel provides heating to PAVST
9321-F-22873	9321-F-26013 9321-F-26103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Steam and condensate lines are insulated and contained in outer guard pipe.
1 / ASD	8-ASD-678-1	RAD	N/A	EG / PIPE 4	H(36)	NO	N/A	N/A	8-inch Aux Steam Line 678 (insulated and encased with 6-inch Aux. steam line 661 in 18" steel provides heating to PAVST
9321-F-22873	9321-F-26013 9321-F-26103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Steam and condensate lines are insulated and contained in outer guard pipe.

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
0 / APW	6-APW-1609-1	RAD	N/A	A / PIPE 4	33 (H-4)	YES	EL 58.7' to EL. 52'-6" (6 to 6 ft)	80 ft	8-inch CST Overflow line to MH-9 8 ft length at 85 deg angle with horizontal then approx. 10 feet length @ EL. 52'-6" (non-corrugated pipe portion)
1C61-P-0019D	8"SW-1267D, 8"SW-1268D	DIRECT VISUAL, DIRECT & CIVIL UT	YARD, NW CORNER OF AFP BLDG	High PRI.	EXC3-3	NO	3/2013	N/A	See drawing for EXC3-3 in Appendix H
0 / APW	6-APW-1609-0	RAD	N/A	A / PIPE 4	33 (H-4)	YES	EL. 52'-6" (6 ft)	80 ft	8-inch CST Overflow line to MH-9 (corrugated metal pipe)
1C61-P-0019D	1C61-P-1267D, 1C61-P-1268D	DIRECT VISUAL, DIRECT & CIVIL UT	YARD, NW CORNER OF AFP BLDG	High PRI.	EXC3-3	NO	3/2013	N/A	See drawing for EXC3-3 in Appendix H
0 / SW	14-SW31-1	NON-RAD	N/A	D / PIPE 4	HIGH	YES	EL. 6'-9" to EL. 1'-0 (5 - 4 ft)	4 ft	14-inch 31 SW discharge piping, from strainer pit floor penetration to 24-inch pump discharge manifold. Verified pipe section.
1C61-P-0019D (all)	1C61-P-1108D, 1C61-P-1107D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	14-SW32-1	NON-RAD	N/A	D / PIPE 4	HIGH	YES	EL. 6'-9" to EL. 1'-0 (5 - 4 ft)	4 ft	14-inch 32 SW discharge piping, from strainer pit floor penetration to 24-inch pump discharge manifold
1C61-P-0019D (all)	1C61-P-1108D, 1C61-P-1107D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	14-SW33-1	NON-RAD	N/A	D / PIPE 4	HIGH	YES	EL. 6'-9" to EL. 1'-0 (5 - 4 ft)	4 ft (vert), 0 ft (horiz.)	14-inch 33 SW discharge piping, from strainer pit floor penetration to 24-inch pump discharge manifold, including 90 deg elbow
1C61-P-0019D (all)	1C61-P-1108D, 1C61-P-1107D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	24-SW-400-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-6"	11.8 ft	24-inch 31/32/33 SWP pump discharge manifold (24-inch Line 400)
1C61-P-	1C61-P-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (G/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
2321-F-21063 sh 1	2321-F-21063 2321-F-21073								
0 / SW	14-SW-34-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (0 – 4.8)	4 ft	14-inch 31 SW discharge piping, from strainer pit floor penetration to 24-inch pump discharge manifold. Vertical pipe section.
2321-F-21063 sh 1	2321-F-21063 2321-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	14-SW-35-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (0 – 4.8)	4 ft	14-inch 32 SW discharge piping, from strainer pit floor penetration to 24-inch pump discharge manifold. Vertical pipe section.
2321-F-21063 sh 1	2321-F-21063 2321-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	14-SW-36-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 5'-9" to EL. 1'-0" (0 – 4.8)	4 ft (vert); 8 ft (horiz.)	14-inch 33 SW discharge piping, from strainer pit floor penetration to 24 inch pump discharge manifold, including 90 deg elbow.
2321-F-21063 sh 1	2321-F-21063 2321-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	24-SW-4-36-1	NON-RAD	N/A	C / PIPE 3	HIGH	YES	EL. 1'-0"	11.5 ft	24 inch 34/36/36 SWP pump discharge manifold (24 inch, Line 406)
2321-F-21063 sh 1	2321-F-21063 2321-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	8-SW-Cw-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-0" (4 ft)	8 ft (vert)	8-inch SW to Circ Pump bearing cooling, from Line 408 in strainer pit
2321-F-21063 sh 1	2321-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
0 / SW	8-SW-Cw-2	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-0" (4 ft)	4 ft (vert)	8-inch SW to Circ Pump bearing cooling, from Line 409 in strainer pit
2321-F-	2321-F-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
2-SW-001	0107A								
3 / SW	24-SW-408-3	NON-RAD	N/A	D / PIPE 4	HIGH	YES	EL. 7'-9" (19 ft)	66 ft	24-inch SW Line 408, from pump discharge manifold to Discharge Canal west wall.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	24-SW-408-4	NON-RAD	N/A	D / PIPE 4	HIGH	YES	EL. 7'-9" (19 ft)	62 ft	24-inch SW Line 408, from pump discharge manifold to Discharge Canal west wall.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	24-SW-408-2	NON-RAD	N/A	D / PIPE 4	HIGH	NO	EL. 10'-7" (N/A)	48 ft	24-inch SW Line 408, from Discharge Canal west wall to Discharge Canal east wall.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Piping in limited access (welded security hatch) concrete tunnel. Cement lined, carbon steel pipe
3 / SW	24-SW-408-3	NON-RAD	N/A	D / PIPE 4	HIGH	NO	EL. 7'-9" (N/A)	66 ft	24-inch SW Line 408, from Discharge Canal west wall to Discharge Canal east wall.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Piping in limited access (welded security hatch) concrete tunnel. Cement lined, carbon steel pipe
3 / SW	24-SW-409-4	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 7'-9" (19 ft)	90 ft	24-inch SW Line 409, from Discharge Canal east wall to 18-inch branch to Turb. Bldg.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	24-SW-409-4	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 7'-9" (19 ft)	28 ft	24-inch SW Line 409, from Discharge Canal east wall to 18-inch branch to Turb. Bldg.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	24-SW-409-5	NON-RAD	N/A	D / PIPE 3	HIGH	YES	EL. 7'-9" (19 ft)	6.5 ft	24-inch SW Line 409, from 18-inch branch to 10-inch branch to Turb. Bldg.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	24-SW-409-6	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 7'-9" (19 ft)	6.5 ft	24-inch SW Line 409, from 18-inch branch to 10-inch branch to Turb. Bldg.
3021-F-2063 sht 1	3021-F-21073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	10-SW-[illegible]	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 7'-9"	8 ft	10-inch SW Line 1209 from Line 409 to

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	1220-1						(10 ft)		valve pit (outside west wall of TB).
0321-F-20161 sh 1	1321-D-01073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Core piping ends in valve pit, dry side of isol. valve. Cement lined, carbon steel pipe.
0 / SW	18-SW-1219-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 9'-0" (10 ft)	15 ft	18-inch SW Line 1819 from Line 409 to valve pit (outside west wall of TB).
0321-F-20162 sh 1	0321-F-01073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Core piping ends in valve pit, dry side of isol. valve. Cement lined, carbon steel pipe.
0 / SW	10-SW-1220-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 9'-0" (10 ft)	8 ft	10 inch SW Line 1220 from Line 409 to valve pit (outside west wall of TB).
0321-F-20162 sh 1	0321-F-01073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Core piping ends in valve pit, dry side of isol. valve. Cement lined, carbon steel pipe.
0 / SW	18-SW-1221-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 9'-0" (10 ft)	15 ft	18-inch SW Line 1221 from Line 409 to valve pit (outside west wall of TB).
0321-F-20162 sh 1	1321-D-01073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Core piping ends in valve pit, dry side of isol. valve. Cement lined, carbon steel pipe.
0 / SW	18-SW-TB-1	NON-RAD	N/A	C / PIPE 4	MED	YES	EL. 8'-10" (8.5 ft)	90 ft	18 inch branch from valve pit to TB.
0321-F-20161 sh 2	0321-F-20871	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Non-Core piping. Cement lined, carbon steel pipe.
0 / SW	10-SW-TB-1	NON-RAD	N/A	C / PIPE 4	MED	YES	EL. 9'-0" (9 ft)	30 ft	10 inch branch from valve pit to TB.
0321-F-20161 sh 2	0321-F-20871	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Non-Core piping. Cement lined, carbon steel pipe.
0 / SW	24-SW-409-B	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-6" to EL. 8'-2" (11 - 6 ft)	140 ft	24-inch SW Line 409 from 10-inch branch to TB, to BRJ SWP valve pit.
0321-F-20161 sh 1	0321-F-27551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Includes vertical transition from 1'-6" to EL. 9'-2". Cement lined, carbon steel pipe.
0 / SW	24-SW-409-B	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 1'-6" to EL. 8'-2" (11 - 6 ft)	140 ft	24-inch SW Line 409 from 10 inch branch to TB, to BRJ SWP valve pit.
0321-F-20161 sh 1	0321-F-27551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Includes vertical transition from 1'-6" to EL. 9'-2". Cement lined, carbon steel pipe.
0 / SW	24-SW-710-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 9'-6" (9.5 ft)	18 ft	24-inch SW Line 710 from Backup SWP to Lines 408 & 409.
0321-F-20161 sh 1	0321-F-27551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe.

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
U / SW	24-SW-408-7	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11' (4.6 m)	328 ft	24-inch SW Line 408 from BAU SWP valve pit to 10-inch branches to the EDGs.
9321-P-2003 sh1 9321-P-2703	9321-P-27503 9321-P-27403	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
U / SW	08-SW-408-7	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11' (4.6 m)	328 ft	24-inch SW Line 408 from BAU SWP valve pit to 10-inch branches to the EDGs.
9321-P-2003 sh1 9321-P-2703	9321-P-27503 9321-P-27401	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
U / SW	24-SW-408-8	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" to EL. 13'-6" (3.8 m)	80 ft	24-inch SW Line 408 from 10-inch branch to the EDGs to the Room with the Rack.
9321-P-1003 sh1 9321-P-2703	9321-P-27503 9321-P-27503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Vertical section in the Room with the Rack is end of buried 24-inch line. Cement lined, carbon steel pipe
U / SW	24-SW-408-9	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" to EL. 13'-0" (3.8 m)	80 ft	24-inch SW Line 408 from 10-inch branch to the EDGs to the Room with the Rack.
9321-P-2003 sh1 9321-P-2703	9321-P-27503 9321-P-27503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Vertical section in the Room with the Rack is end of buried 24-inch line. Cement lined, carbon steel pipe
U / SW	10-SW-1086-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11'-6" (4.5 m)	188 ft	10-inch SW supply Line 1086 to EDGs, from Line 408.
9321-P-2703	9321-P-28303 9321-P-28373	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
U / SW	10-SW-1086-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11'-6" (4.5 m)	184 ft	10-inch SW supply Line 1086 to the EDGs, from Line 408.
9321-P-2703	9321-P-28303 9321-P-28373	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
3 / SW	10-SW-1096-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11'-0" (3.3 ft)	180 ft	10-inch SW return Line 1096 from EDGs.
8321-F-27203	8321-F-28353 8321-F-28370	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	3-SW-1187-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11'-0" (3 ft)	104 ft	3-inch SW supply to IACCWRX's, Line 1187
8321-F-27203	8321-F-28353 8321-F-27203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	3-SW-1186-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11'-2" (3 ft)	104 ft	3-inch SW supply to IACCWHX's, Line 1186
8321-F-27203	8321-F-28365 8321-F-27203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	3-SW-1280-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 11'-0" (3 ft)	106 ft	3-inch SW discharge from IACCWHX's, Line 1280
8321-F-27203	8321-F-28340 8321-F-27203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
3 / SW	24-SW-402-1	NON-RAD	N/A	C / PIPE 4	HIGH	YES	EL. 12'-6" (4 ft)	340 ft	24-inch SW Line 402 to discharge canal
8321-F-27203	8321-F-27203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cement lined, carbon steel pipe
31 CWP	84-CWS-31-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 8'-6" (8.5 ft)	6 ft	31 CWP discharge, from expansion joint to access point. Coated inside and out w/ coal tar enamel, protective felt outer wrap
8321-F-27203	8321-F-27203	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
31 CW	30-CWS-31-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 8'-0" to 15'-0" (7 to 0 ft)	6 ft	31 CWP discharge, 30-inch flanged access point (vertical pipe). Coated inside and out w/ coal tar enamel, protective felt outer wrap
8321-F-27203	8321-F-27203	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
3 / CW	84-CWS-31-2	NON-RAD	N/A	D / PIPE 6	HIGH	CONC	EL. 6'-6" to 9'-0" (8.5 to 6 ft)	120 ft	31 CWP discharge – portion encased in concrete (access point to the far side of discharge canal). No stiffeners or OD coating/wrap.
3 / CW	84-CWS-31-3	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-6" to (-) 1'-9" (9 to 18'-3")	85 ft	31 CWP discharge piping from concrete to transition to 96 –inch OD. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap. OD stiffeners @ 6'-6" centers.
3 / CW	84-CWS-31-4	NON-RAD	N/A	A / PIPE 3	HIGH	YES	EL. (-) 1'-9" to 3'-9" (4.5 to 9 ft)	10 ft	31 CWP discharge piping after transition to rectangular inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap. OD stiffeners @ 9'-8" centers)
3 / CW	84-CWS-32-1	NON-RAD	N/A	A / PIPE 3	HIGH	YES	EL. 3'-9" (9.8 ft)	9 ft	32 CWP discharge, from expansion joint to access point. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap.
3 / CW	84-CWS-32-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-0" to 18'-0" (7 to 0 ft)	9 ft	32 CWP discharge, 90-inch flanged access point (vertical). Coated inside and out w/ coal tar enamel, asbestos felt outer wrap.
3 / CW	84-CWS-32-3	NON-RAD	N/A	D / PIPE 6	HIGH	CONC	EL. 9'-6" to 9'-0" (8.5 to 6 ft)	120 ft	32 CWP discharge – portion encased in concrete (access point to the far side of discharge canal). No stiffeners or OD coating/wrap.
3 / CW	84-CWS-32-4	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-0" to (-) 1'-9" (8 to 18'-3")	85 ft	32 CWP discharge piping from concrete to transition to 96 –inch OD. Coated inside and out w/ coal tar enamel, asbestos felt outer

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
									wrap; OD stiffeners @ 6'-6" centers
9321-F-2090	9321-F-2090	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
1 / CW	84-CWS-02-5	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-3" to 3'-9" (4.5 to 0 ft)	10 ft	32 CWP discharge piping after 84WE transition to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap; OD stiffeners @ 6'-6" centers)
9321-F-2090	9321-F-2090	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
1 / CW	84-CWS-03-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 8'-6" (8.5 ft)	8 ft	28 CWP discharge, from expansion joint to access point. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap
9321-F-2090	9321-F-2090	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
1 / CW	30-CWS-05-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 8'-9" to 15'-2" (7 to 6 ft)	6 ft	33 CWP discharge, 30-inch flanged access point (vertical). Coated inside and out w/ coal tar enamel, asbestos felt outer wrap
9321-F-2090	9321-F-2090	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
1 / CW	84-CWS-03-3	NON-RAD	N/A	D / PIPE 8	HIGH	CONC	EL. 6'-6" to 9'-0" (8.5 to 6 ft)	120 ft	28 CWP discharge -- portion encased in concrete (access point to the far side of discharge canal). No stiffeners or OD coatings/wrap
9321-F-2090	9321-F-2090	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
1 / CW	84-CWS-03-4	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 8'-6" to (-) 1'-0" (8 to 19'-6")	86 ft	30 CWP discharge piping from concrete to transition to 96 -inch OD. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap; OD stiffeners @ 6'-6" centers
9321-F-2090	9321-F-2090	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
1 / CW	96-CWS-03-5	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-3" to 3'-9" (4.5 to 0 ft)	10 ft	30 CWP discharge piping after 84WE transition to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap; OD stiffeners @ 6'-6" centers)
9321-F-	9321-F-	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
20263	22623								
S / CW	84-CWS-84-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" (2.0 ft)	9 ft	24 CWP discharge, from expansion joint to access point. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap
9821-F-20263	9821-F-22623	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
S / CW	90-CWS-84-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" to 15'-0" (2 to 5 m)	9 ft	24 CWP discharge, 90-inch flanged access point (vertical). Coated inside and out w/ coal tar enamel, asbestos felt outer wrap
9821-F-20263	9821-F-22623	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
S / CW	84-CWS-84-3	NON-RAD	N/A	D / PIPE 4	HIGH	CONC	EL. 6'-6" to 9'-0" (2.0 to 2.8 ft)	180 ft	24 CWP discharge – portion encased in concrete (access point to the far side of discharge canal). No stiffeners or OD overlayings
9821-F-20263	9821-F-22623	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
S / CW	84-CWS-84-4	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-0" to (-) 1'-3" (2 to 18'-3")	63 ft	24 CWP discharge piping from concrete to turbine in 96 –inch OD. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap, OD stiffeners @ 5'-0" centers
9821-F-20263	9821-F-22623	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
S / CW	96-CWS-84-5	NON-RAD	N/A	D / PIPE 8	HIGH	YES	EL. (-) 1'-3" to 3'-6" (4.8 to 0 ft)	10 ft	96 CWP discharge piping after 24-inch transition to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap; OD stiffeners @ 4'-6" centers)
9821-F-20263	9821-F-22623	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
S / CW	84-CWS-84-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" (2.0 ft)	9 ft	24 CWP discharge, from expansion joint to access point. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap
9821-F-20263	9821-F-22623	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
S / CW	90-CWS-84-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 6'-6" to 15'-0" (2 to 5 m)	9 ft	24 CWP discharge, 90-inch flanged access point (vertical). Coated inside and out w/ coal tar enamel, asbestos felt outer wrap

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
0321-P-2003	8321-K-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-3	NON-RAD	N/A	D / PIPE 9	HIGH	CONC	EL. 8'-6" to 9'-0" (8.5 to 9 ft)	15.0 ft	36 CWP discharge – portion encased in concrete pipeway at the far side of discharge canal). No stiffeners or OD coating/wrap.
0321-P-2003	8321-P-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-4	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-0" to (-) 1'-3" (9 to 14'-6")	65 ft	36 CWP discharge piping from nozzles to transition to 96 – inch OD. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap. OD stiffeners @ 5'-6" centers
0321-P-2003	8321-P-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-5	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. (-) 1'-3" to 9'-3" (14.5 to 9 ft)	10 ft	36 CWP discharge piping after nozzle transition to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel, asbestos felt outer wrap. OD stiffeners @ 5'-6" centers)
0321-P-2003	8321-P-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-1	NON-RAD	N/A	A / PIPE 3	HIGH	YES	EL. 9'-6" (9.5 ft)	9 ft	36 CWP discharge, from expansion joint to access point. Coated inside and out w/ coal tar enamel, asbestos felt outer wrap.
0321-P-2003	8321-P-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-2	NON-RAD	N/A	A / PIPE 3	HIGH	YES	EL. 9'-0" to 10'-0" (9 to 9.5 ft)	8 ft	36 CWP discharge, 30 inch flanged access point (restrict). Coated inside and out w/ coal tar enamel, asbestos felt outer wrap.
0321-P-2003	8321-P-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-3	NON-RAD	N/A	G / PIPE 6	HIGH	CONC	EL. 8'-6" to 9'-0" (8.5 to 9 ft)	120 ft	36 CWP discharge – portion encased in concrete pipeway at the far side of discharge canal). No stiffeners or OD coating/wrap.
0321-P-2003	8321-P-2003	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
3 / CW	84-CWS-33-	NON-RAD	N/A	A / PIPE 4	HIGH	YES	EL. 9'-0" to (-	65 ft	36 CWP discharge piping from concrete to

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	4						) 1'-3" (6 to 16'-3")		transition to 96 –inch OD. Coated inside and out w/ coal tar enamel; asbestos felt outer wrap; OD stiffeners @ 6'-6" centers
9321-F-2563	9321-F-2563	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
9321-F-2563	96-CWS-36-4	NON-RAD	N/A	D / PIPE 8	HIGH	YES	EL. (-) 1'-9" to 3'-3" (4.5 to 9 ft)	39 ft	36 CWP discharge piping after 96-inch transition to condenser inlet waterbox. (Coated inside and out w/ coal tar enamel; asbestos felt outer wrap; OD stiffeners @ 6'-6" centers)
9321-F-2563	9321-F-2563	ID VISUAL	N/A	N/A	N/A	N/A	N/A	N/A	
9 / EDG	9-EDGFD-1	NON-RAD	N/A	A / PIPE 4	HIGH	YES	1 ft below slab	1 ft	EDG FOST -- 8" Overflow Line Piping is vertical through slab, about 1 ft length.
9321-F-2563	9321-F-2563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All piping connections are included in the tank integrity test (annual)
9 / EDG	9-EDGFD-2	NON-RAD	N/A	A / PIPE 4	HIGH	YES	1 ft below slab	1 ft	EDG FOST -- 4" Fill Line Piping is vertical through slab, about 1 ft length.
9321-F-2563	9321-F-2563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All piping connections are included in the tank integrity test (annual)
9 / EDG	9-EDGFD-3	NON-RAD	N/A	A / PIPE 4	HIGH	YES	1 ft below slab	1 ft	EDG FOST -- 4" Vent Piping is vertical through slab, about 1 ft length.
9321-F-2563	9321-F-2563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All piping connections are included in the tank integrity test (annual)
9 / EDG	9-EDGFD-4	NON-RAD	N/A	A / PIPE 4	HIGH	YES	1 ft below slab	1 ft	EDG FOST -- Misc. Connections (Manway, Level Indicator, sounding connection, threaded sparge, etc) All connections at top of tank and run straight up through slab, about 1 ft in length.
9321-F-2563	9321-F-2563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All connections are included in the tank integrity test (annual)
[illegible]	[illegible]	NON-RAD	N/A	H / PIPE 2	MEDIUM	YES	N/A	N/A	Sewage treatment piping
9321-F-2563 9321-F-	9321-F- 4131S, -2L, 3S, swg -1B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Provided w/ cathodic protection. CP for a portion of piping system is not functional

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
41273									
0 / AFDG FO	2-AFDGFO-2	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 17'-0" (2 of)	Y1 R	Agg R DG FOST Supply to DG (2-inch) in concrete vault, 2 inch pea gravel cover
8021-F-2163 Q	8021-F-E8562		N/A	N/A	N/A	N/A	N/A	N/A	
0 / AFDG FO	2-AFDGFO-3	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 17'-0" (2 of)	10 R	Agg R DG FOST Fuel vent to tank (2-inch), in concrete vault, 2 inch pea gravel cover
8021-F-2163 Q	8021-F-D4561		N/A	N/A	N/A	N/A	N/A	N/A	
0 / AFDG FO	3-AFDGFO-1	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 17'-0" (2 of)	12 R	Agg R DG FOST truck fill line (3-inch), in concrete vault, 2 inch pea gravel cover
8021-F-2163 Q	8021-F-B5561		N/A	N/A	N/A	N/A	N/A	N/A	
0 / AFDG	2-AFDGFO-3	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 17'-0" (2 of)	10 R	Agg R DG FOST tank vent (2 in) in concrete vault, 2 inch pea gravel cover
8021-F-2163 Q	8021-F-E8563		N/A	N/A	N/A	N/A	N/A	N/A	
0 / TSCDG	2-TSCDG-FO-1	NON-RAD	N/A	FIN / PIPE 5	MEDIUM	NO	EL. 13'-0" (approx.) (2 ft)	68 R	1-inch copper TSC Diesel Generator Fuel Oil day tank overflow return
8021-F-2163 Q	8021-F-E8563		N/A	N/A	N/A	N/A	N/A	N/A	In 3-inch FRP guard pipe
0 / TSCDG	2-TSCDG-FO-2	NON-RAD	N/A	M / PIPE 4	MEDIUM	YES	EL. 13'-0" (approx.) (2 ft)	35 R	2-inch TSC Diesel Generator Fuel Oil tank vent
8021-F-2163 Q	8021-F-E8563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Vent line in FRP pipe
0 / TSCDG	2-TSCDG-FO-0.75-1	NON-RAD	N/A	FIN / PIPE 5	MEDIUM	NO	EL. 13'-0" (approx.) (2 ft)	68 R	0.75-inch copper TSC Diesel Generator Fuel Oil Pump suction
8021-F-2163 Q	8021-F-E8563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	In 4 inch FRP guard pipe
0 / TSCDG	2-TSCDG-FO-0.25-1	NON-RAD	N/A	FIN / PIPE 5	MEDIUM	NO	EL. 13'-0" (approx.) (2 ft)	30 R	0.25-inch TSC Diesel Generator Level Indicator Instrument line
8021-F-	8021-F-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.25 inch copper tubing in 3-inch FRP guard

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
41203	42233								pipe
9 / CYM	1.5-CWM-1083-1	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 11'-0" (8 ft)	40 ft	1½ inch City Water Line 1083
9321-P-20048 sh 1	9321-P-20060 9321-P-20072	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9 / CYM	1-CWM-1083-1	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 11'-0" (8 ft)	110 ft	1-inch City water Line 1083 makeup to the IACCW Head Tank
9321-P-20048 sh 1	9321-P-20060 9321-P-20072	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9 / CYM	2-CWM-1083-1	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 11'-0" (8 ft)	100 ft	2-inch City Water line 1083
9321-P-20048 sh 1	9321-P-20060 9321-P-20072	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9 / CYM	3-CWM-4	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	N/A	N/A	3-inch City Water Line to Radioactive Machine Shop (RSMS)
9321-P-20048 sh 1		N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9 / CYM	2-CWM-1082-1	NON-RAD	N/A	A / PIPE 3	MEDIUM	YES	EL. 12'-0" (8 ft)	20 ft	2-inch City Water line 1082
9321-P-20048 sh 1	9321-P-20060 9321-P-20072	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9 / CYM	3-CWM-1082-2	NON-RAD	N/A	A / PIPE 4	MEDIUM	YES	EL. 11'-6" (8 ft)	80 ft	3-inch City Water line 1082
9321-P-20048 sh 1	9321-P-20060 9321-P-20072	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9 / CYM	10-CWM-BWAY-FP-1	NON-RAD	N/A	A / PIPE 3	MEDIUM	YES	various (8 ft)	1800 ft	10-inch City Water line, from Buoy to Fire Pump House. Follows ground contour, in two buried sections

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (O/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
0321-F-20148 sh 2	0321-F-41808	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1 - CVM	1-CWM-1	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	4-inch PW5741 to Fire Pump House
0321-F-20148 sh 2	0321-F-41808	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1 - CVM	4-CWM-1	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	4-inch PW5742 to Fire Pump House
0321-F-20148 sh 2	0321-F-41808	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - CVM	3-CWM-3	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	3-inch City Water line from Fire Pump House to Aux Bldg
0321-F-20148 sh 2	0321-F-41808	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - FP	3-FP-1	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	10-inch Main FP Header
0321-F-40903	0321-F-40903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - FP	8-FP-2	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	EL. 12'-0" (0.0)	N/A	8-inch FP Header
0321-F-40913	0321-F-40818 0321-F-41708 0321-F-40905	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - FP	6-FP-2	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	6-inch Fire Protection branch line
0321-F-40913	0321-F-40903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - FP	3-FP-3	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	3-inch Fire Protection branch line
0321-F-40913	0321-F-40903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - FP	2-FP-3	NON-RAD	N/A	PIPE 4	MEDIUM	YES	N/A	N/A	2-inch Fire Protection branch line
0321-F-40913	0321-F-40903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 - FP	8-FP-3	NON-RAD	N/A	- PIPE 4	MEDIUM	YES	N/A	N/A	8-inch Fire Protection - Yard
0321-F-41708 sh 1	0321-F-40903 0321-F-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
	41795 8321-F- 4004								
5 / FP		NON-RAD	N/A	N/A	MED	YES	N/A	N/A	8-inch Fire Protection – Yard
8321-F- 4060, 8321-F- 41438 8321-F- 4109 [sic]	8321-F- 41795, 8321-F- 41859	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1 / FP	4-FP-3	NON-RAD	N/A	N/A	MED	YES	N/A	N/A	8-inch Fire Protection – Yard
8321-F- 4060, 8321-F- 41438	8321-F- 40075, 8321-F- 41795, 8321-F- 41863, 8321-F- 41875	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5 / HZ	1-HZ-1	NON-RAD	N/A	A/B / 3"SCH. S	MED	YES	N/A	N/A	1-inch Hydrogen Line from Aux Boiler Bldg to PAB
8321-F- 40403	8321-F- 41843, 8321-F- 41913, 8321-F- 41923	N/A	N/A	N/A	N/A	N/A	N/A	N/A	in 3-inch outer guard pipe
1 / SW	3-SW-1	NON-RAD	N/A	B / PIPE 4	LOW	YES	-5 ft	250 ft	4-inch demineralized water to RAB3 Bldg
8321-F- 40249	8321-F- 41843, 8321-F- 41913, 8321-F- 41923	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5 / IA	2-IA-1756-1	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 11' (7 ft)	250 ft	2-inch Instrument Air Line 1156 to Yard (to 8 Buildings)
8321-F- 40403 or 152	8321-F- 41128	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
3 / IA	8-IA-1150-2	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 15'-6" (8 ft)	40 ft	8-inch Instrument Air Line 1150 to AFP Building
8021-F-21103 sht 2	8021-F-21103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / IA	3-IA-1167-1	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 11'-6" (4 ft)	700 ft	3½-inch Instrument Air Line 1167 to Intake Structure
8021-F-21103 sht 2	8021-F-21103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / SA	3-SA -IA-1	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 13'-6" (6 ft)	40 ft	3-inch Station Air Turbine Bldg to Intake Structure
8021-F-20903	8021-F-21103 8021-F-20903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / SA	3-SA-AFP-1	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 13'-6" (6 ft)	60 ft	3-inch Station Air Turbine Bldg to AFP Bldg (in Yard trench)
8021-F-20903	8021-F-21103 8021-F-20903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / SA	3-SA AFP-2	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 13'-6" (6 ft)	40 ft	2-inch Station Air branch line to AFP Bldg
8021-F-20903	8021-F-21103 8021-F-20903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / SA	3-SA-AFP-2	NON-RAD	N/A	A / PIPE 4	LOW	YES	EL. 13'-6" (6 ft)	108 ft	3-inch Station Air from Yard to VC (location permitted)
8021-F-20903	8021-F-21103 8021-F-20903	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3 / ASC	4-ASC-2	NON-RAD	N/A	G / PIPE 4	EXEMPT (L-L)	YES	EL. 12'-4" (2.7 ft)	220 ft	4-inch Aux Steam Condensate return line from IP1. Excavated and found heavily corroded in 2007. Associated buried 8-inch Aux Steam line was replaced (entire length) in July 2007.

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
9321-F-41013	9321-F-41013	N/A	N/A	N/A	N/A	NO	N/A	N/A	Buried portion (~280 ft) heavily corroded; entire buried length replaced, Backfilled, July (2007)
3 / AA	1.5-AA-1	NON-RAD	N/A	B / PIPE A	EXEMPT (L-1)	YES	EL. 98' to 94' (3 ft max)	150 ft	1½ inch Admin. Air line from House Service Boiler Bldg to 1 inch branch to Fire Pump House
9321-F-41013	9321-F-41013 9321-F-41853	N/A	N/A	N/A	N/A	YES	N/A	N/A	
3 / AA	1.5-AA-2	NON-RAD	N/A	B / PIPE A	EXEMPT (L-1)	YES	EL. 90' to 79' (3 ft max)	265 ft	1½ inch Admin. Air line from House Service Boiler Bldg continuation to Radioactive Machine Shop (RAMS)
9321-F-41853	9321-F-41013 9321-F-41853	N/A	N/A	N/A	N/A	YES	N/A	N/A	
3 / AA	1-AA-3	NON-RAD		B / PIPE A	EXEMPT (L-1)	YES	EL. 98' to 79' (3 ft max)	140 ft	1 inch Admin. Air line to Fire Pump House
9321-F-41853	9321-F-41853 9321-F-41853	N/A	N/A	N/A	N/A	YES	N/A	N/A	
3 / PWC	3-PWC-1	NON-RAD	N/A	F / PIPE A	EXEMPT (L-1)	YES	N/A	N/A	Potable Water – Cold line to RAMS Bldg
9321-F-41943	9321-F-41943 9321-F-41943 9321-F-41943	N/A	N/A	N/A	N/A	YES	N/A	N/A	
3 / PWC	3-PWC-WH-1	NON-RAD	N/A	F / PIPE A	EXEMPT (L-1)	YES	N/A	N/A	Potable Water – Cold line to Warehouse
9321-F-41933	9321-F-41943 9321-F-41813 9321-F-41853	N/A	N/A	N/A	N/A	YES	N/A	N/A	

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APPENDIX A
PIPING INSPECTION INFORMATION

UNIT / SYSTEM	LINE NUMBER	RAD / NON-RAD	SEGMENT NUMBER	PIPE GROUP / ITEM	RISK RANKING (PRI)	DIRECT SOIL?	ELEVATION (DEPTH)	LENGTH	DESCRIPTION
DRAWING P&ID	DRAWING OTHER	INSPECT STRATEGY	INSPECT LOCATION	LOCATION JUSTIFICATION	EXCAVATION NUMBER	IN-LINE INSP. #	SCHEDULE (Q/YYYY)	FUNDING SOURCE	MISCELLANEOUS NOTES
3 / PWC	1-PW(C)-WH-3	NON-RAD	N/A	F / PIPE 4	EXEMPT (L-L)	YES	N/A	N/A	Potable Water – Cold line to PAB
9321-F-41433	9321-F-41943 9321-F-41813 9321-F-41823	N/A	N/A	N/A	N/A	YES	N/A	N/A	

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APPENDIX B
TANK INSPECTION INFORMATION

SYSTEM DRAWING PID / EM	TANK NUMBER INSPECTION STRATEGY	DESCRIPTION SCHEDULE (Q/YYYY)	TANK GROUP / ITEM FUNDING SOURCE	RISK RANKING (PRI)[1] PMID NUMBER[2]	MISCELLANEOUS NOTES PMID DESCRIPTION[2]
1 - FWH	FST-113	13 Waste Distillate Storage Tank	TANK 1	50	
0PS440	N/A	2/2011 4/2011	O&M O&M	80063800-01 80063100-01	5M External Inspection of CT-113 (2 PT-5A/5B) 5Y Internal Inspection of Tank CT-113
1 - FWH	CT-114	14 Waste Distillate Storage Tank	TANK 1	50	
0PS440	N/A	2/2011 2/2011	O&M O&M	80063800-01 80063111-01	5M External Inspection of CT-114 (2 PT-5A/5B) 5Y Internal Inspection of Tank CT-114
1 - WTP	11CST	11 Condensate Storage Tank	TANK 1	45	5-06-02 - Tank was cleaned by CLEAN HARBORS. Internals were inspected and accepted by System Engineer and Q.C. Bioscopic performed by Q.C. acceptable. 1
0PS440	N/A	2/2011	O&M	80063110-01	5M External Inspection of 11CST (2 PT-5A/5B)
1 - WTP	12CST	12 Condensate Storage Tank	TANK 1	45	5-06-02 - Tank was cleaned by CLEAN HARBORS. Internals were inspected and accepted by System Engineer and Q.C. Bioscopic inspection performed by Q.C. acceptable.
0PS440	N/A	2/2011	O&M	80063110-01	5M External Inspection of 12CST (2 PT-5A/5B)
1 - WTP	13CST	13 Condensate Storage Tank	TANK 1	45	5-06-02 - Tank was cleaned by CLEAN HARBORS. Internals were inspected and accepted by System Engineer and Q.C. Bioscopic performed by Q.C. acceptable.
0PS440	N/A	2/2011	O&M	80063110-01	5M External Inspection of 13CST (2 PT-5A/5B)
1 - GT	GT1-FOT-11	GT1 Fuel Oil Storage Tank (South)		N/A	
0PS440	N/A	2/2011	O&M	80063800-01	12M Gas Turbine 1 FOST Tightness Test (2 PT-4/5A1) (NYSDEC approved)
1 - GT	GT1-FOT-12	GT1 Fuel Oil Storage Tank (North)		N/A	
0PS440	N/A	2/2011	O&M	80063800-01	12M Gas Turbine 1 FOST Tightness Test (2 PT-4/5A1) (NYSDEC approved)
2 - FWH	21FWST	Reheating Water Storage Tank	TANK 1	50	
0PS440	N/A	2/2011 1/2012	O&M O&M	80063800-01 80063800-02	5M External Inspection of FWST (2 PT-5A/5B) 10Y Internal Inspection of FWST
2 - CWS	21HUT	21 Hotwell Tank (CWS)	TANK 4	50	
0PS440	N/A	N/A	N/A	N/A	
2 - CWS	22HUT	22 Hotwell Tank (CWS)	TANK 4	50	
0PS440	N/A	N/A	N/A	N/A	
2 - CWS	23HUT	23 Hotwell Tank (CWS)	TANK 4	50	
0PS440	N/A	N/A	N/A	N/A	
2 - FWS	21WHUT	21 Waste Hotwell Tank	TANK 4	50	
0PS440	N/A	N/A	N/A	N/A	
2 - PW	PWST	Primary Water Storage Tank	TANK 1	50	
0PS440	N/A	2/2011	O&M	80063800-01	5M External Inspection of PWST (2 PT-5A/5B)

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APPENDIX B
TANK INSPECTION INFORMATION

SYSTEM DRAWING PID / EM	TANK NUMBER INSPECTION STRATEGY	DESCRIPTION SCHEDULE (Q/YYYY)	TANK GROUP / ITEM FUNDING SOURCE	RISK RANKING (PRI)[1] PMID NUMBER[2]	MISCELLANEOUS NOTES PMID DESCRIPTION[2]
		2/2012	O&M	50057989-04	10Y Internal Inspection of Tank PWST
2 / WDS	21SWT	21 Sump Tank		48	
5321-2219	N/A	N/A	N/A	N/A	
2 / WDS	21DFT	Chemical Drain Tank 21		48	
5321-2219	N/A	N/A	N/A	N/A	
2 / WDS	1988	Spent Resin Storage Tank		48	
5321-2219	N/A	N/A	N/A	N/A	
2 / APW	CST	Condensate Storage Tank	TANK 1	85	
5321-2015 5321-2245	N/A	2/2011 4/2012	O&M O&M	50056638-01 50056638-02	5M External Inspection of CST 10Y Internal Inspection of CST
2 / DED	SDFT	Security Diesel Fuel Tank (SDFT)	TANK 7	MED	500 gal tank, double wall, carbon steel, min. 0.087" thickness, coating
5321-21 Agmt 91151	N/A	2/2011	50056621	50056621-01	12M Vendor Test/Adj Sec Diesel Fuel Tank Cath Prot
2 / EDG	21FOST	21 Fuel Oil Storage Tank	TANK 7	HIGH (S/R)	in sand filled concrete vault
5321-2020 5321-2240	N/A	3/2013 4/2014	O&M O&M	50056139-01 50062139-01	12M Underriled Tightness Test (2-PT-A04(2B) 10 yr internal tank inspection
2 / EDG	22FOST	22 Fuel Oil Storage Tank	TANK 7	HIGH (S/R)	in sand filled concrete vault
5321-2020 5321-2240	N/A	1/2011 2/2016	O&M O&M	50056139-02 50062139-01	12M Underriled Tightness Test (2-PT-A04(2B) 10 yr internal tank inspection
2 / EDG	23FOST	23 Fuel Oil Storage Tank	TANK 7	HIGH (S/R)	in sand filled concrete vault
5321-2020 5321-2240	N/A	4/2011 2/2016	O&M O&M	50056139-03 50062139-01	12M Underriled Tightness Test (2-PT-A04(2C) 10 yr internal tank inspection
2 /	TK-MAINT WH	Maint Warehouse Building F/O Tank	N/A	MED	Not found in database
N/A	N/A	N/A	N/A	N/A	1000 gal tank
2 /	TK-MAINT 02	PIC Maint Training Building F/O Tank	N/A	MED	Not found in database
N/A	N/A	N/A	N/A	N/A	1000 gal tank
2 / 19	PWST-31	Primary Water Storage Tank	TANK 1	61	
5321-2 2020 5321-2 2010		2/2011 2/2017	O&M O&M	50056663-01 50072077-02	5M External Inspection of PWST (5-PT-SA07(1) 10Y PM Internal Inspection of PWST
31 / DWD	31 Monitor Tank	31 Monitor Tank	TANK 1	56	
5321-2 2020 5321-2 2040		2/2011 3/2017	O&M O&M	50056664-01 50056690-01	4M External Inspection of 31 MT (5-PT-SA07(1) 10Y Internal Inspection of tank

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APPENDIX B
TANK INSPECTION INFORMATION

SYSTEM DRAWING PID / EM	TANK NUMBER INSPECTION STRATEGY	DESCRIPTION SCHEDULE (Q/YYYY)	TANK GROUP / ITEM FUNDING SOURCE	RISK RANKING (PRI)[1] PMID NUMBER[2]	MISCELLANEOUS NOTES PMID DESCRIPTION[2]
3 / LWD	32 Monitor Tank	32 Monitor Tank	TANK 1	56	
3 / PW 3 / FP		2/2011 2/2013	OSM O&M	00000364-01 00000340-01	6M External Inspection of 32 MT (3 PT SA07) 10Y Internal Inspection of tank
3 / CWDS	CWATH12	CWDS Holdup Tank 32	TANK 4	68	
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / LWD	3HBTT02A	Waste Holdup Tank 32	TANK 4	68	50,000 gallon capacity; room housing tank is undercoated to protect groundwater
3 / FP	N/A	N/A	N/A	N/A	
3 / LWD	3HBT01B	Waste Holdup Tank 33	TANK 4	68	50,000 gallon capacity; room housing tank is undercoated to protect groundwater
3 / FP	N/A	N/A	N/A	N/A	
3 / CWDS	CWATH11	CWDS Holdup Tank 31	TANK 4	68	
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / CWDS	CWATH13	CWDS Holdup Tank 33	TANK 4	68	
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / LWD	WDATW01	Waste Holdup Tank 31	TANK 4	68	24,000 gallon capacity; room housing tank is undercoated to protect groundwater
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / PW	PW-3-TK	Primary Water Storage Tank	TANK 1	48	
3 / FP 3 / PW	N/A	2/2011 2/2021	O&M O&M	00000364-01 00000340-01	6M External Inspection of PW-3-TK (3 PT SA07) 10Y Internal Inspection of PW-3-TK
3 / LWD	SUMP TANK 31	(FAB) Sump Tank 31	N/A	48	
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / LWD	WDATC01	Chemical Drain Tank 31	N/A	48	
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / GWD	WDATGDL1	Large Gas Decay Tank 31	TANK 5	43	
3 / FP 3 / PW	N/A	N/A	N/A	N/A	
3 / GWD	WDATGDL2	Large Gas Decay Tank 32	TANK 5	43	

IPEC00234090

APPENDIX B
TANK INSPECTION INFORMATION

SYSTEM	TANK NUMBER	DESCRIPTION	TANK GROUP / ITEM	RISK RANKING (PRI)[1]	MISCELLANEOUS NOTES
DRAWING PID / EM	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER[2]	PMID DESCRIPTION[2]
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDL3	Large Gas Decay Tank 33	TANK 5	43	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDL4	Large Gas Decay Tank 34	TANK 5	43	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDS1	Small Gas Decay Tank 31	TANK 5	42	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDS2	Small Gas Decay Tank 32	TANK 5	42	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDS3	Small Gas Decay Tank 33	TANK 5	42	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDS4	Small Gas Decay Tank 34	TANK 5	42	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDS5	Small Gas Decay Tank 35	TANK 5	42	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
37 / GWD	WDATGDS6	Small Gas Decay Tank 36	TANK 5	42	
9321-F-25103 9321-F-25113	N/A	N/A	N/A	N/A	
[illegible]	COND STOR TK	Condensate Storage Tank	TANK 1	38	
[illegible]	N/A	2/2011 3/2013	O&M O&M	[illegible] [illegible]	6M External Inspection of COND STOR TANK 10Y Internal Inspection COND STOR TANK
[illegible]	EDG-31-FO-STNK	DG 31 Fuel Oil Storage Tank	TANK 7	HIGH (S/R)	In sand filled concrete vault.
[illegible]	N/A	1/2011 2/2013	O&M	[illegible]-01	18M 31 EDG FOST Leak Test (3-PT-A028A) 10Y Clean/Inspect 31 EDG FOST
[illegible]	EDG-32-FO-STNK	DG 32 Fuel Oil Storage Tank	TANK 7	HIGH (S/R)	In sand filled concrete vault.
[illegible]	N/A	4/2011 1/2019	O&M	[illegible]-01 [illegible]-01	18M 32 EDG FOST Leak Test (3-PT-A028B) 10Y Clean/Inspect 32 EDG FOST

APPENDIX B
TANK INSPECTION INFORMATION

SYSTEM DRAWING PID / EM	TANK NUMBER INSPECTION STRATEGY	DESCRIPTION SCHEDULE (Q/YYYY)	TANK GROUP / ITEM FUNDING SOURCE	RISK RANKING (PRI)[1] PMID NUMBER[2]	MISCELLANEOUS NOTES PMID DESCRIPTION[2]
3 / EG	EDG-33-FO-STNK	DG 31 Fuel Oil Storage Tank	TANK 7	HIGH (S/R)	In sand filled concrete vault.
9321-F-20303	N/A	3/2011 1/2015	O&M	50073630-01 50066218-01	12M 33 EDG FOST Leak Test (3-PT-A029-C) 10Y Clean/Inspect 33 EDG FOST
3 / TSCG	TSG FUEL TK	T.S.C. DG Underground Fuel Oil Storage Tank	TANK 7	MED	Tank is 4,000 gal carbon steel, double wall. FRP dual interstitial pod for detection of tank leakage. Current tank is 1993 replacement of original single wall FO tank (Ref. DCM 93-3-123).
9321-F-20303 (FOST Fill and Vent)	N/A	3/2011	O&M	50073631-01	Weekly tank leakage test (3-PT-W011, per TRS 3.8.C.3) 12M T.SC DG FOST Leak Test (3-PT-AC36)
3 / APDG	APDG-FO-ST	Appendix R FOST	TANK 7	MED	In sand filled concrete vault.
9321-F-20303 9321-F-20304 9321-F-20305	N/A	3/2011	O&M	50073632-01	12M APP "P" DG FOST Leak Test (3-PT-A036)
9 / HVAC	TRAINING BLDG FUEL TANK	Training Bldg Fuel Oil Storage Tank	TANK 7	MED	
	N/A	3/2011	O&M	50073633	12M FO Tank leak test by Vendor per WCDOH requirements
9 / BDG	SERVICE TREAT FO TANK	Sewage Treatment Diesel Fuel Oil Tank	TANK 7	MED	110 gal tank. Partially excavated and pressure tested in 1997, at which time degraded fuel oil piping and fittings were replaced. (Ref. WO # [illegible])
9321-F-47800 (FW-1201-1008)	N/A	3/2011	O&M	50072632-01	12M FO Tank leak test by Vendor per WCDOH requirements
9 / SSC	SSG-TK-001	Back-up Security Generator Liquid Propane Tank (north)	TANK 7	MED	5M PM inspection per 3-GNR-006-ELC
9321-F-41600	N/A	N/A	N/A	N/A	Safeguards, 1994 in-service date (approx.)
3 / SSC	SPG-TK-002	Back-up Security Generator Liquid Propane Tank (south)	TANK 7	MED	5M PM inspection per 3-GNR-006-ELC
9321-F-41600	N/A	N/A	N/A	N/A	Safeguards, 1994 in-service date (approx.)

Notes:
2-PT-A042 series test are tank tightness tests, using approved NYS DEC test method. (IP2 is categorized as a Major Oil Storage Facility (MOSF.)
3-PT-A029 series tests are tank leak tests, utilizing pressure/vacuum/UT method, and satisfy Westchester County Dept of Health (WCDOH) tank testing requirements. (IP3 is categorized as a Petroleum Bulk Storage (PBS) facility.)
Underground tank list based on IP-SMM-EV-103, "Petroleum Bulk Storage Tank Program"

APPENDIX C
SUMP INSPECTION INFORMATION

UNIT / SYSTEM	SUMP NUMBER	DESCRIPTION	SUMP GROUP / ITEM	RISK RANKING (PRI)	MISCELLANEOUS NOTES
DRAWING PID / EB	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER[2]	PMID DESCRIPTION[2]
U1	Cont. Drain Tank	Contaminated Drain Tank Sump	N/A	4Q	
U0[2]Q 4015E	N/A	N/A	N/A	N/A	N/A
U1	Laundry Drain Tank	Laundry Drain Tank Sump	N/A	4Q	
4015E 3H[2]Q	N/A	N/A	N/A	N/A	N/A
U1	North Curtain Drain	North Curtain Drain	N/A	4Q	
1H[2]10	N/A	N/A	N/A	N/A	N/A
U1	Sewage Pit	Sewage Pit	N/A	4Q	
4015E	N/A	N/A	N/A	N/A	N/A
U1	U1 SP	U1 SP	N/A	4Q	
1H[2]0E	N/A	N/A	N/A	N/A	N/A
U1	Sump Pits & Pit	Sump Pits & Pit	N/A	4Q	
4015E	N/A	N/A	N/A	N/A	N/A
U1	U1 Containment Annulus	U1 Containment Annulus	N/A	4Q	
4015E	N/A	N/A	N/A	N/A	N/A
U1	U1 Containment Spray Sump	U1 Containment Spray Sump	N/A	4Q	
	N/A	N/A	N/A	N/A	N/A
U1	U1 Foundation Drain	U1 Foundation Drain Line	N/A	4Q	
	N/A	N/A	N/A	N/A	N/A
U1	U1 Contaminated Annulus	Contaminated Annulus	N/A	4Q	
	N/A	N/A	N/A	N/A	N/A
U1[2]Q	IP1 U1 F.O.Valve	U1 Valley Tunnel EL 2' Sump	N/A	4Q	
1H[2]10 1H[2]47 1H[2]51 1H[2]55	N/A	N/A	N/A	N/A	N/A
U1	U1 Turbine Foundation Drain	U1 Turbine Foundation Drain Sump	N/A	4Q	
4015E 4015E	N/A	N/A	N/A	N/A	N/A
U1	North Curtain Drain Annulus	North Curtain Drain Annulus	N/A	4Q	
1H[2]10	N/A	N/A	N/A	N/A	N/A

IPEC00234093

APPENDIX C
SUMP INSPECTION INFORMATION

UNIT / SYSTEM	SUMP NUMBER	DESCRIPTION	SUMP GROUP / ITEM	RISK RANKING (PRI)	MISCELLANEOUS NOTES
DRAWING PID / EB	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER[2]	PMID DESCRIPTION[2]
[illegible]					
31	Elevator #4	Elevator #4	N/A	40	
31 [illegible]	N/A	N/A	N/A	N/A	N/A
31 [illegible]	Sump 32	WHUT P8 Sump 32	SUMP 2	64	WHUT P8 Sump 32 @ EL. 36'
[illegible]	N/A	N/A	N/A	N/A	N/A
31 [illegible]	Sump 35	FAB Sump 35	SUMP 2	40	FAB Sump 35 @ EL. 19'-9"
[illegible]	N/A	N/A	N/A	N/A	N/A
31 [illegible]	Sump 33	FSB Sump 33	SUMP 2	40	FSB Sump 33 @ EL. 8'-9" (SFP Pit Room)
[illegible]	N/A	N/A	N/A	N/A	N/A
31 [illegible]	Sump 34	CSW Sump 34	SUMP 2	36	CSW Sump in PAB @ EL 19'
[illegible]	N/A	N/A	N/A	N/A	N/A
31 DWG	EHUT P31	WHUT P8 Sump	SUMP 2	40	Waste Hookup Pipe Sump
[illegible]	N/A	N/A	N/A	N/A	N/A
31 [illegible]	SUMP 312	FHB Sump 312	SUMP 2	40	PAB Sump 312 @ EL. 47'
31 [illegible]	N/A	1Q2013	N/A	50070831	2Y Decon/Clean/Pit Inspection of PAB Sump 312
31	WHUP SUMP 35	Waste Hookup Sump 35	SUMP 2	40	WHUT P8 Sump 35 @ EL 32'
[illegible]	N/A	1Q2013	N/A	50071116	2Y Decon/Clean Sump
31 DWG	S-317	Steam Generator FP Pavers Sump	SUMP 2	37	S/GEN Sump 317 @ EL. 19'
[illegible]	N/A	4Q2031	N/A	50076832.01	2Y Clean & Inspect Sump
31	S-32	Equipment Leakage & Decon Drain Sump	N/A	37	
N/A	N/A	N/A	N/A	N/A	
31 DWG	SUMP 36	PAB Sump 36	SUMP 2	37	PAB Sump 36 @ EL. 19'
[illegible]	N/A	N/A	N/A	N/A	N/A
31 DWG	SUMP 37	PAB Sump 37	N/A	37	PAB Sump 37 @ EL 41'
[illegible]	N/A	1Q2013	N/A	50071824	2Y PM Inspection, Cleaning & Decon of PAB Sump 37
31 DWG	S-38	Aux Steam Condensate P8 Sump	SUMP 2	37	PAB Sump 38 @ EL. 41'
[illegible]	N/A	N/A	N/A	N/A	N/A
31 DWG	S-SLW	Laundry and Lab Waste Sump	SUMP 2	36	Admin. Bldg. Liquid Waste (Laundry & Lab Waste) Collection Sump @ EL. 4'-6"
[illegible]	N/A	N/A	N/A	N/A	N/A

IPEC00234094

APPENDIX C
SUMP INSPECTION INFORMATION

UNIT / SYSTEM	SUMP NUMBER	DESCRIPTION	SUMP GROUP / ITEM	RISK RANKING (PRI)	MISCELLANEOUS NOTES
DRAWING PID / EB	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER[2]	PMID DESCRIPTION[2]
[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	N/A	N/A	N/A	N/A	N/A

Note: Only sumps that are contaminated or potentially contaminated are included.

IPEC00234095

APPENDIX D
DRAIN INSPECTION INFORMATION

SYSTEM	SECTION NUMBER	DESCRIPTION	DRAIN GROUP / ITEM	RISK RANKING (PRI)	MISCELLANEOUS NOTES
DRAWING	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER	PMID DESCRIPTION
2-FD	2-SD-2-Q1	Q1 Sewer Drains	DRAIN 1	DRAIN 2	Initial PM Inspect & Clean performed in 2004
2-FD (sht 1 of 2)	Q1&1-4Q18	4Q2010	O&M	AR 64489	5Y PM Inspect & Clean
2-FD	A-FD-2nd-SP-1-Q01	Q1 2nd FF Floor Drains	N/A	DRAIN 2	N/A
2-FD (Sht 2)	N/A	N/A	N/A	N/A	N/A
2-FD	A-FD-FAB-1-Q01	Q1 FAB Floor Drains	N/A	N/A	N/A
2-FD (Sht 2)	N/A	N/A	N/A	N/A	N/A
2-SD	2-SD-2-Q01	Q1 Sewer Drains	DRAIN 1	DRAIN 2	Initial PM Inspect & Clean performed in 2004
2-FD (sht 2 of 2)	N/A	4Q2010	O&M	AR 64489	5Y PM Inspect & Clean
3-FD	3-FD-3FAB-1-Q01	Q1 FAB Floor Drains	N/A	DRAIN 2	N/A
3-FD (Sht 2)	N/A	N/A	N/A	N/A	N/A
3-FD	3-FD-3FAB-1-Q01	Q1 FAB Floor Drains	N/A	DRAIN 2	N/A
3-FD (Sht 2)	N/A	N/A	N/A	N/A	N/A
3-FD	A-FD-3rdFF-1-Q01	Q1 3rdFF FF Floor Drains	N/A	DRAIN 2	N/A
3-FD (Sht 2)	N/A	N/A	N/A	N/A	N/A
3-FD	N/A	Q1 ERS Bldg Floor Drains	N/A	DRAIN 2	N/A
3-FD (Sht 2)	N/A	N/A	N/A	N/A	N/A

IPEC00234096

APPENDIX E
CATHODIC PROTECTION PM INFORMATION

UNIT / SYSTEM	COMPONENT	DESCRIPTION	GROUP / ITEM	RISK RANKING (PRI)[1]	MISCELLANEOUS NOTES
DRAWING	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER[2]	PMID DESCRIPTION[2]
1 / CAPR	11CPR	IP1 Dock C/P Rectifier 11CPR	N/A	N/A	11CPR – 18CPR under same schedule & WO
1 / CAPR	FUNCTIONAL	2/2011	O&M	18724-01	Vendor Test & Adjust U1 Dock C/P
1 / CAPR	12CPR	IP1 Dock C/P Rectifier 11CPR	N/A	N/A	11CPR – 18CPR under same schedule & WO
1 / CAPR	FUNCTIONAL	2/2011	O&M	18724-01	Vendor Test & Adjust U1 Dock C/P
1 / CAPR	13CPR	IP1 Dock C/P Rectifier 11CPR	N/A	N/A	11CPR – 18CPR under same schedule & WO
1 / CAPR	FUNCTIONAL	2/2011	O&M	18724-01	Vendor Test & Adjust U1 Dock C/P
1 / CAPR	14CPR	IP1 Dock C/P Rectifier 11CPR	N/A	N/A	11CPR – 18CPR under same schedule & WO
1 / CAPR	FUNCTIONAL	2/2011	O&M	18724-01	Vendor Test & Adjust U1 Dock C/P
1 / CAPR	15CPR	IP1 Dock C/P Rectifier 11CPR	N/A	N/A	11CPR – 18CPR under same schedule & WO
1 / CAPR	FUNCTIONAL	2/2011	O&M	18724-01	Vendor Test & Adjust U1 Dock C/P
1 / CAPR	16CPR	IP1 Dock C/P Rectifier 11CPR	N/A	N/A	11CPR – 18CPR under same schedule & WO
1 / CAPR	FUNCTIONAL	2/2011	O&M	18724-01	Vendor Test & Adjust U1 Dock C/P
1 / FO	11FOST	IP1 Fuel Oil Storage Tank (est.) C/P	N/A	N/A	Retired component
1/2/3 FO	N/A	N/A	N/A	SCE&G748 (est)	1Y Inspect tank, excluding cathodic protection - cancelled
1 / FO	11DWS	FO Tank Farm Oil & Water Separator	OP	N/A	
2/2/3 FO	FUNCTIONAL	5/2016	O&M	SCE&G[illegible]	5Y Clean & Inspect Fuel Oil Tank Farm, excluding cathodic protection
2 / SDF	SDFT	Security Diesel Fuel Tank	OP	N/A	Need Relief under new CP's
2/2/3 FO, 2/2/3K, 2/2/3L (est)	FUNCTIONAL	2/2011	O&M	SCE&G[illegible]	1Y Vendor Test/Adjust Security Diesel Fuel Tank Cathodic Protection

IPEC00234097

APPENDIX E
CATHODIC PROTECTION PM INFORMATION

UNIT / SYSTEM	COMPONENT	DESCRIPTION	GROUP / ITEM	RISK RANKING (PRI)[1]	MISCELLANEOUS NOTES
DRAWING	INSPECTION STRATEGY	SCHEDULE (Q/YYYY)	FUNDING SOURCE	PMID NUMBER[2]	PMID DESCRIPTION[2]
safeguards)					
0 / CW4	RECTIFIER CW5	City Water supply from the CWST	CP	N/A	PMCR 94112 issued.
50126 sheet 1	FUNCTIONAL	3Q011	O&M	PMCR 94112	1Y Vendor Test/Adjust City Water Piping Cathodic Protection
0 / 50126	YSD FUEL TK	IP1 YSC Diesel Generator Fuel Tank	CP	N/A	Sacrificial anode type CP's
50126 sheet 1 / 50126 sheet 2	FUNCTIONAL	3QS011	O&M	00070831	1Y Clean & Inspect Fuel Oil Tank Farm, including cathodic protection
0 / DAPA	SACRIFICIAL CATHODIC	Main Sanitary Sewage Line Cathodic Protection	CP	N/A	
50127 sheet 1 / 50127 sheet 2	FUNCTIONAL	4Q011	O&M	00070755	1Y Vendor Test/Adjust S/S Line Cathodic Protection

IPEC00234098

APPENDIX F
Component Inspection Data Sheet, Typical

SCOPE

System Number/Description: _____
Line/Tank Number: _____
Component Number: _____
Segment Number(s): _____
Segment Location: _____
Drawing Number(s): _____
Inspection Priority: _____
Basis for Scope Selection: _____

WORK MANAGEMENT

Engineering Change: _____
PM/WO Number: _____
Clearance Number: _____
LCO Number: _____
Condition Report Number: _____

PRE-INSPECTION VERIFICATIONS

Previous Inspection (Y/N)
Cathodic Protection (Y/N) Functional (Y/N) Rectifier Number: _____
Coating (Y/N) Type: _____ Soil Analysis (Y/N)
Backfill Type: _____ Contains Rock (Y/N)
Fluid Medium: _____ Radionuclide (Y/N)
Pipe OD: _____(in) Thickness: _____(in) Material: _____
Operating Pressure: _____(psi) Design Pressure: _____(psi)
Component Age: _____(years) Depth: _____(ft) Length: _____(ft)
Excavation Required (Y/N) Permit Number: _____
Confined Space (Y/N) Permit Number: _____
Job Safety Hazards Analysis (Y/N) Asbestos Abatement (Y/N) Lead Paint (Y/N)

IPEC00234099

APPENDIX F
Component Inspection Data Sheet, Typical

SCHEDULE

Online (Y/N) Divisional Week: _____

Scheduled Start Date: _____ Actual Start Date: _____

Scheduled Finish Date: _____ Actual Finish Date: _____

INSPECTION METHOD(S)

Indirect Inspection Coating Holiday Detection (Y/N) Method: _____

Internal Inspection Pig (Y/N) Vendor: _____ Pipe Cleaning (Y/N)

Visual: VT-1 (Y/N) VT-2 (Y/N) VT-3 (Y/N)

Direct Local NDE (Y/N) Method: _____

Ultrasonic/Guided Wave (Y/N)

Other: _____

M&TE/TOOLS

M&TE

Digital Light Meter: _____ Expiration: _____

Ultrasonic Meter: _____ Expiration: _____

Transducer(s): _____ Expiration: _____

Holiday Detector: _____ Expiration: _____

Pit Gauge: _____ Expiration: _____

Tools

List all required: _____

_____

_____

_____

_____

Prepared by: _____ Date: _____

IPEC00234100

APPENDIX G
INTEGRATED SCHEDULE

INSPECTION #	LINE NUMBER(S)	DATE SCHEDULED	WO #
EXC1-3	6-inch WD Line 252 (RWST overflow to WHUT) 3-inch SI Line 161 (SIP return to the RWST) 12-inch SI Line 181 (RWST to Cont. Spray Pumps) 16-inch SI Line 155 (RWST to RHR Pumps) 16-inch outer pipe containing 6-inch AUX STM Line 561 and 2-inch COND Line 678	3Q2011	N/A
EXC2-2	24-inch SW Lines 408 and 409	2Q2012	N/A
EXC3-3	12-inch Line 1070 (CST Supply to CST) 8-inch Line 1080 (Condensate Return to CST) 8-inch Line 1028 (CMP CST Tank Overflow to MH-9)	3Q2013	N/A

ADDITIONAL EXCAVATION SITES TO BE SELECTED BASED ON APEC SURVEY RESULTS AND SITE SOIL ANALYSIS.

IPEC00234101

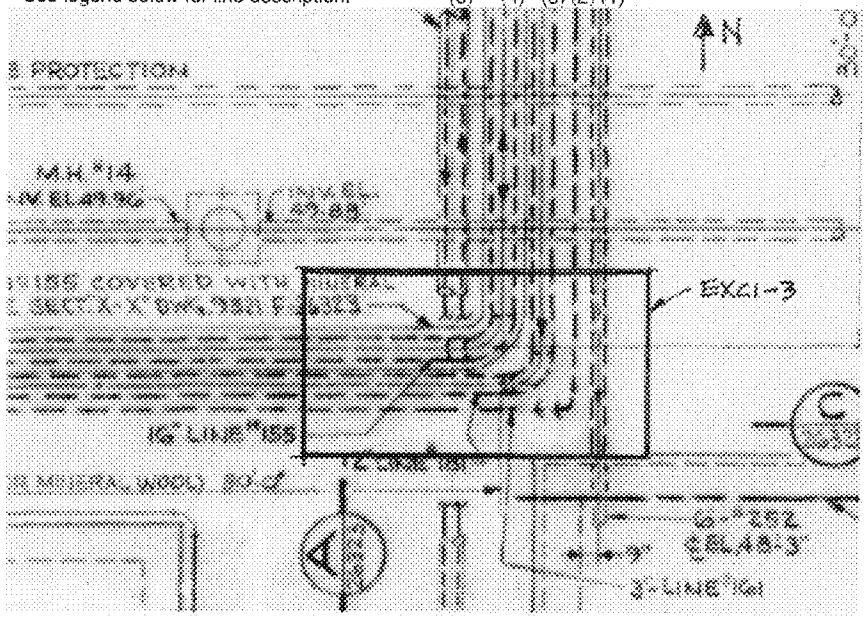
APPENDIX H
PROGRAM DRAWINGS

EXC1-3: IP3 @ NW Corner of the WHUT Pit

Reference: drawing 9321-F-26313

See legend below for line description:

from Refueling Water Storage Tank (NORTH)
(5) (4) (3) (2) (1)



Buried lines continue to the Fuel Storage Building on the Left (WEST). PAB is at lower left

A 15 ft (N-S) x 20 ft (E-W) x 8 ft (deep) excavation (grade is at approx. El. 54 ft) will uncover the following lines:

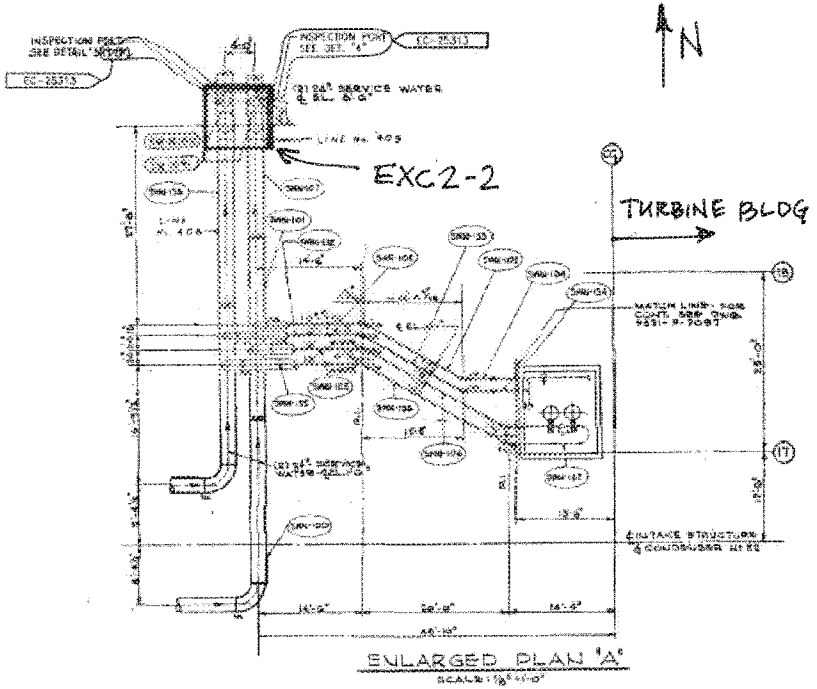
1. 6-inch WD Line 252 (RWST overflow to WHUT) — the BOP is at ~ El. 48'
2. 3-inch SI Line 161 (SIP return to the RWST) — the BOP is at ~ El. 48'
3. 12-inch SI Line 181 (RWST to Cont. Spray Pumps) — the BOP is at ~ El. 48'
4. 16-inch SI Line 155 (RWST to RHR Pumps) — the BOP is at ~ El. 48'
5. 16-inch outer pipe containing 6-inch STM Line 561 and 2-inch COND Line 678 — the BOP (outer) ~ El. 48'

IPEC00234102

APPENDIX H
PROGRAM DRAWINGS

EXC2-2: IP2 West Side of the Turbine Building

Reference: Drawing 9321-2700
Co-ordinated excavation with installation of EC 25313
Lines to be inspected 24-inch SW Lines 408 and 409

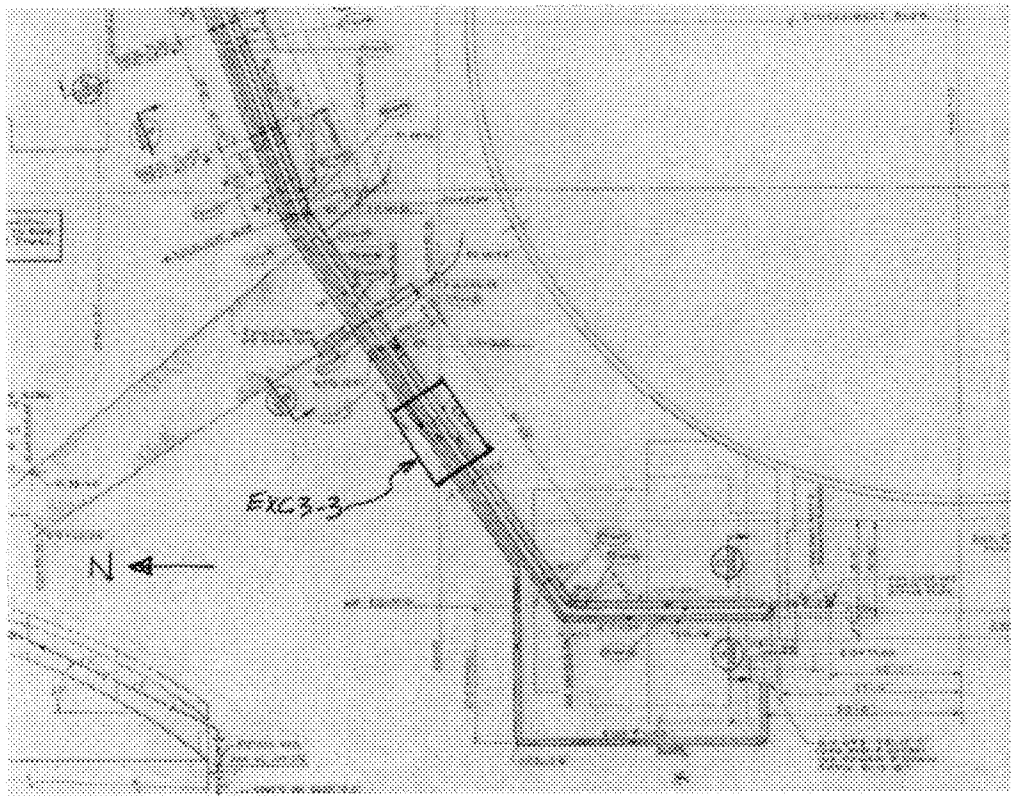


The excavation to remove the existing 14-inch blind flanged access point on SW Line 409 will be expanded to expose a minimum of 10 feet of length of pipe for both Lines 408 and 409 over their full circumference. At the access point location, the centerline of the 24-inch Line 409 (& Line 408) is at El. 8'-6", and the access point is at 4'6" downstream of a vertical rise of 7'-6" from El. 1'-0". The excavation will be 10 ft (E-W) x 12 ft (N-S) x 10 ft deep.

IPEC00234103

APPENDIX H
PROGRAM DRAWINGS

EXC3-3: BURIED LINES FROM THE IP3 CST TO THE AFW PUMP BLDG.



REF: DWG. 9321-F-22873
LINES TO BE EXCAVATED & INSPECTED:
(Note: App R DG Fuel Oil & Cooling Water Run overhead the perimeter of the Area -- see drawing 9321-F-23593)

IP3- YARD AREA
12" Line 1070 (CST Supply to CST)
8" Line 1080 (Condensate Return to CST)
8" Line 1028 (CMP CST Tank Overflow to MH-9)

IPEC00234104

APPENDIX H
PROGRAM DRAWINGS

ADDITIONAL EXCAVATION SITES TO BE SELECTED BASED ON APEC SURVEY AND SITE SOIL ANALYSIS.

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