SECTION 15145 - DOMESTIC WATER PIPING SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. SECTION INCLUDES:
 - 1. VACUUM BREAKERS.
 - 2. HOSE BIBBS.
 - 3. WALL HYDRANTS.
 - 4. WATER-HAMMER ARRESTERS.
 - 5. TRAP-SEAL PRIMER VALVES.
- 1.2 ACTION SUBMITTALS
 - A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT.
- 1.3 INFORMATIONAL SUBMITTALS
 - A. FIELD QUALITY-CONTROL REPORTS.
- 1.4 CLOSEOUT SUBMITTALS
 - A. OPERATION AND MAINTENANCE DATA.

PART 2 - PRODUCTS

- 2.1 GENERAL REQUIREMENTS FOR PIPING SPECIALTIES
 - A. POTABLE-WATER PIPING AND COMPONENTS SHALL COMPLY WITH NSF 61
- 2.2 PERFORMANCE REQUIREMENTS
 - A. MINIMUM WORKING PRESSURE FOR DOMESTIC WATER PIPING SPECIALTIES: 125 PSIG UNLESS OTHERWISE INDICATED.
- 2.3 VACUUM BREAKERS
 - A. HOSE-CONNECTION VACUUM BREAKERS:
 - 1. STANDARD: ASSE 1011.
 - 2. BODY: BRONZE, NONREMOVABLE, WITH MANUAL DRAIN.

- 3. OUTLET CONNECTION: GARDEN-HOSE THREADED COMPLYING WITH ASME B1.20.7.
- 4. FINISH: CHROME OR NICKEL PLATED.

2.4 HOSE BIBBS

A. HOSE BIBBS:

- 1. STANDARD: ASME A112.18.1 FOR SEDIMENT FAUCETS.
- 2. BODY MATERIAL: BRONZE.
- 3. SEAT: BRONZE, REPLACEABLE.
- 4. SUPPLY CONNECTIONS: NPS 1/2 OR NPS 3/4 THREADED OR SOLDER-JOINT INLET.
- 5. OUTLET CONNECTION: GARDEN-HOSE THREAD COMPLYING WITH ASME B1.20.7.
- 6. PRESSURE RATING: 125 PSIG.
- 7. VACUUM BREAKER: INTEGRAL OR FIELD-INSTALLATION, NONREMOVABLE, DRAINABLE, HOSE-CONNECTION VACUUM BREAKER COMPLYING WITH ASSE 1011.
- 8. FINISH FOR EQUIPMENT ROOMS: ROUGH BRONZE, OR CHROME OR NICKEL PLATED.
- 9. FINISH FOR SERVICE AREAS: ROUGH BRONZE.
- 10. FINISH FOR FINISHED ROOMS: CHROME OR NICKEL PLATED.
- 11. OPERATION FOR EQUIPMENT ROOMS: WHEEL HANDLE OR OPERATING KEY.
- 12. OPERATION FOR SERVICE AREAS: OPERATING KEY.
- 13. OPERATION FOR FINISHED ROOMS: OPERATING KEY.
- 14. INCLUDE OPERATING KEY WITH EACH OPERATING-KEY HOSE BIBB.
- 15. INCLUDE INTEGRAL WALL FLANGE WITH EACH CHROME- OR NICKEL-PLATED HOSE BIBB.

2.5 WALL HYDRANTS

A. NONFREEZE WALL HYDRANTS:

- 1. STANDARD: ASME A112.21.3M FOR CONCEALED-OUTLET, SELF-DRAINING WALL HYDRANTS.
- 2. PRESSURE RATING: 125 PSIG.
- 3. OPERATION: LOOSE KEY.
- 4. CASING AND OPERATING ROD: OF LENGTH REQUIRED TO MATCH WALL THICKNESS. INCLUDE WALL CLAMP.
- 5. INLET: NPS 3/4 OR NPS 1.
- 6. OUTLET: CONCEALED, WITH INTEGRAL VACUUM BREAKER AND GARDEN-HOSE THREAD COMPLYING WITH ASME B1.20.7.
- 7. BOX: DEEP, FLUSH MOUNTED WITH COVER.
- 8. BOX AND COVER FINISH: STATUARY MEDIUM BRONZE.
- 9. OPERATING KEYS(S): ONE WITH EACH WALL HYDRANT.

2.6 WATER-HAMMER ARRESTERS

A. WATER-HAMMER ARRESTERS:

- 1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
 - A. AMTROL, INC.

- B. JOSAM COMPANY.
- C. MIFAB, INC.
- D. PRECISION PLUMBING PRODUCTS, INC.
- E. SIOUX CHIEF MANUFACTURING COMPANY, INC.
- F. SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.
- G. WATTS DRAINAGE PRODUCTS.
- H. ZURN INDUSTRIES, LLC; PLUMBING PRODUCTS GROUP; SPECIFICATION DRAINAGE PRODUCTS.
- 2. STANDARD: ASSE 1010 OR PDI-WH 201.
- 3. TYPE: METAL BELLOWS OR COPPER TUBE WITH PISTON.
- 4. SIZE: ASSE 1010, SIZES AA AND A THROUGH F, OR PDI-WH 201, SIZES A THROUGH F.

2.7 TRAP-SEAL PRIMER DEVICE

- A. SUPPLY-TYPE, TRAP-SEAL PRIMER DEVICE:
 - 1. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT INDICATED ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:
 - A. MIFAB, INC.
 - B. PRECISION PLUMBING PRODUCTS, INC.
 - C. SIOUX CHIEF MANUFACTURING COMPANY, INC.
 - D. SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.
 - E. WATTS; A DIVISION OF WATTS WATER TECHNOLOGIES, INC.; WATTS REGULATOR COMPANY.
 - 2. STANDARD: ASSE 1018.
 - 3. PRESSURE RATING: 125 PSIG MINIMUM.
 - 4. BODY: BRONZE.
 - 5. INLET AND OUTLET CONNECTIONS: NPS 1/2 THREADED, UNION, OR SOLDER JOINT.
 - GRAVITY DRAIN OUTLET CONNECTION: NPS 1/2 THREADED OR SOLDER JOINT.
 - 7. FINISH: CHROME PLATED, OR ROUGH BRONZE FOR UNITS USED WITH PIPE OR TUBE THAT IS NOT CHROME FINISHED.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. INSTALL WATER-HAMMER ARRESTERS IN WATER PIPING ACCORDING TO PDI-WH 201.
- B. INSTALL SUPPLY-TYPE, TRAP-SEAL PRIMER VALVES WITH OUTLET PIPING PITCHED DOWN TOWARD DRAIN TRAP A MINIMUM OF 1 PERCENT, AND CONNECT TO FLOOR-DRAIN BODY, TRAP, OR INLET FITTING. ADJUST VALVE FOR PROPER FLOW.

3.2 FIELD QUALITY CONTROL

A. PERFORM THE FOLLOWING TESTS AND INSPECTIONS:

- 1. TEST EACH PRESSURE VACUUM BREAKER ACCORDING TO AUTHORITIES HAVING JURISDICTION AND THE DEVICE'S REFERENCE STANDARD.
- B. DOMESTIC WATER PIPING SPECIALTIES WILL BE CONSIDERED DEFECTIVE IF THEY DO NOT PASS TESTS AND INSPECTIONS.
- C. PREPARE TEST AND INSPECTION REPORTS.

END OF SECTION 15145