

Ohio Department of Natural Resources  
Division of Oil and Gas Resources Management  
2045 Morse Road  
Building F-2  
Columbus, OH 43229-6693

Re: Permit Application to Operate an O&G Processing Facility at Martins Ferry, Ohio

Dear Ms. Pratt

Austin Master Services, LLC (AMS) is submitting this permit application for operation of a storage and processing facility to be located at 801 North 1<sup>st</sup> Street, Martins Ferry OH. One of the buildings (#256) that previously comprised the former RG Steel Industrial Plant will be the specific location of AMS's operation.

Attached are the permit and supporting documentation as follows:

- Attachment 1 – Completed Permit Application Form
- Attachment 2 – Facility Location Map and Building Drawings
- Attachment 3 - Description of Proposed Facility Use
- Attachment 4 – Radiological and Environmental protection Program Plan
- Attachment 5 – SDSs/MSDSs
- Attachment 6 \_ ONDR comments and repsonse

Note that we are not using our specific State of Ohio Radioactive Materials License at this time given the Ohio Department of Health indicated there is no requirement for a license for this specific operation. However, our proposed program in Attachment 4 will use the same implementing procedures for monitoring and measurement specific tasks.

Additionally AMS intends to perform a modified Phase 2 Environmental Assessment of the property but that task is a separate activity from this permit application.

Please direct any questions or comments to me at the phone or address listed below.

Respectfully,



Jack Bement  
Director of Operations  
Austin Master Services LLC  
355 Circle of Progress  
Pottstown PA, 19464  
[jbement@austinmasterservices.com](mailto:jbement@austinmasterservices.com)

**Attachment 1**  
**Completed Permit Application Form**

**APPLICATION TO OPERATE A FACILITY**  
OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT  
2045 MORSE ROAD, BUILDING F-2  
COLUMBUS, OHIO 43229-6693  
(614) 265-6922

<b>1.</b>	Name of Applicant: <u>Austin Master Services, LLC</u> Address: <u>355 Circle of Progress Drive, Pottstown, PA 19464</u> Date: <u>9/8/14</u> eMail Address: <u>jbelement@austinmasterservices.com</u> For an Order or a Permit to Operate: <input type="checkbox"/> Existing Facility <input checked="" type="checkbox"/> New Facility	Phone #: <u>484- 624-5504</u> CELL: <u>585-704-2744</u>
<b>2.</b>	<b>PURPOSE OF FACILITY:</b> <input checked="" type="checkbox"/> Storage <input checked="" type="checkbox"/> Recycling <input checked="" type="checkbox"/> Treatment (Check all that Apply) <input checked="" type="checkbox"/> Processing <input checked="" type="checkbox"/> Disposal	
<b>3.</b>	<b>TYPE OF MATERIAL:</b> <input type="checkbox"/> Brine <input checked="" type="checkbox"/> Drill Cuttings <input checked="" type="checkbox"/> Drilling Mud <input checked="" type="checkbox"/> Other Waste Substance (explain) <u>All E &amp; P generated TENORM.</u>	
<b>4.</b>	<b>If a Business Entity, list the statutory agent and include a certified copy of their appointment:</b> Name: <u>Business Filings Inc.</u> Address: <u>4400 Easton Commons Way, Suite 125, Columbus, OH 43219</u>	
<b>5.</b>	<b>Engineer of Record:</b> Name: _____ Address: _____ Ohio Professional Engineering License Number: _____	
<b>6.</b>	<b>Address of Facility:</b> Address: <u>801 North 1<sup>st</sup> Street, Martins Ferry, OH 43935</u> County: <u>Belmont</u> Township: <u>Martins Ferry</u> Municipal Corporation: <u>Martins Ferry</u> Latitude: _____ Longitude: _____	
<b>7.</b>	<b>Write a brief description of the facility and operations:</b> <u>The facility is located in an industrial park {old steel mill} that currently houses other gas/oil related businesses {waste water facility}. Site operations will include: waste storage/staging, analysis of TENORM using ODH In-situ approved technology, waste solidification, waste down-blending, trans loading of waste and other non-hazardous material {trucks to train and train to truck} and cleaning/decontamination of tanks structures debris and equipment. and recycling of drill cuttings.</u> <u>The majority of waste containers will be stored inside of the facility {under roof} and all waste will be processed inside. Tank cleaning will utilize pressure washers and a vacuum truck to capture wastewater in order to prevent spills. Waste processing and down-blending will be performed using half-round containers with exisiting pits being used as secondary containment.</u>	

The building drains will be sealed using robust covers to prevent migration of contaminated material into the drainage system. Closed waste containers that cannot be stored inside will be contained in specially fabricated lined/bermed lay-down areas.  
Process flow: TENORM Waste containers will be brought by truck into the facility and analyzed for radium content using Ohio In-Situ approved method. Based on customer needs and radium concentration the waste may go straight to the landfill or to our downblending or solidification pit. An excavator will be used to mix the required amount of approved solidification media with the waste in order to attain the desired consistency and/or radium concentration. Waste found to exceed disposal limits may be loaded into lined rail cars for transportation to appropriately permitted radiological burial facility or re-blended. All work to be performed under site specific Radiological Protection Plan (RPP) and Radiological safety program operating procedures.

#### Flooding

The buildings sit eight feet above ground elevation and while in the flood plain have some additional protection that should minimize any flooding affects. regardless AMS will implement the following measures when severe weather is predicted:

- Monitor FEMA and Ohio river warnings to determine if flooding is likely
- If flooding is likely then all exterior containers will be moved inside the building. Note that these containers are sealed and are unlikely to have their contents dispersed during a flood situation.
- Empty the pit contents back into containers and secure any non-containerized materials with berms.
- continuously evaluate the building situation to determine if any building content may have migrated with the receding flood waters and if migration occurs notify ODNR, Ohio EPA and ODH and assist those agencies in determining if any radiological impact has occurred outside the building boundary.

See attached Radiation Protection Plan table of content. Plan is available for review upon request

See attached Radiological Operating procedures table of contents. Procedures available upon request

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### **8. Include all information as set forth in the "Guidelines for Application for Chief's Order". Attach Additional Documents**

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I certify that the facility will comply with or is currently in compliance with all provisions of Chapter 1509 ORC, Chapter 1501 OAC, and all terms and conditions of orders and permits issued by the Chief, Division of Oil and Gas Resources Management.

Signature of Authorized  
Agent

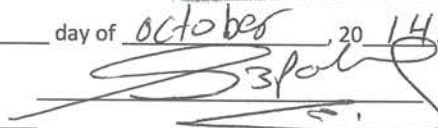


Name (Type or Print) John Bement *VP ops* Title \_\_\_\_\_

COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL  
SANDEEP PATEL, NOTARY PUBLIC  
NORTH COVENTRY TWP, CHESTER COUNTY  
MY COMMISSION EXPIRES APR. 19, 2015

Sworn to and subscribed before me this the 10 day of October, 2014.



(Notary Public)

12/19/2015

(Date Commission

Expires)

**Attachment 2**  
**Site Overview/Drawing**

**Figure 1- General Map Overview of Martins Ferry Facility Location**



Facility located at  
801 North First Street, Martins Ferry, OH 43935  
Building 256

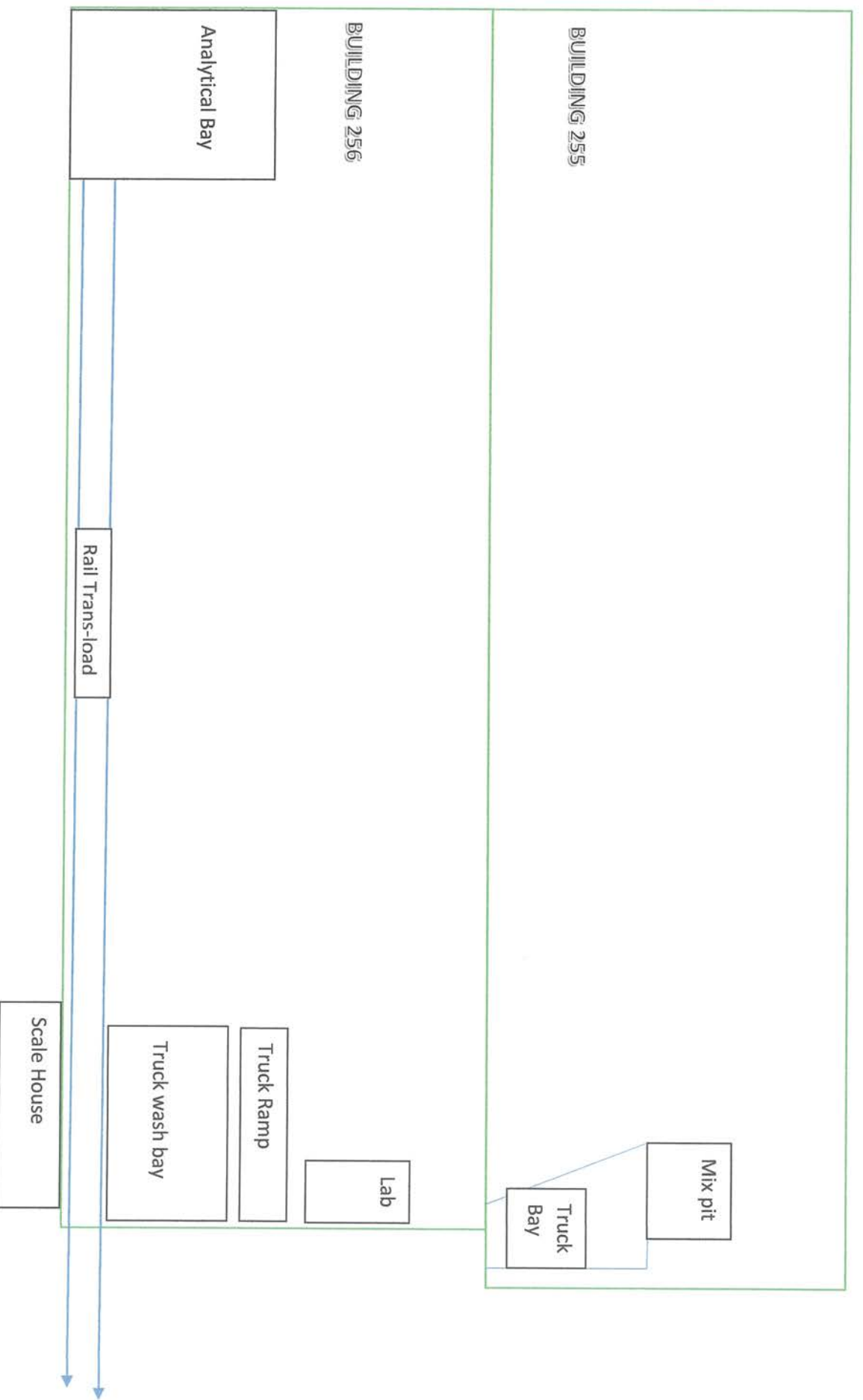
**Figure 2 Local Area Map Surrounding Building 256 Processing Facility**



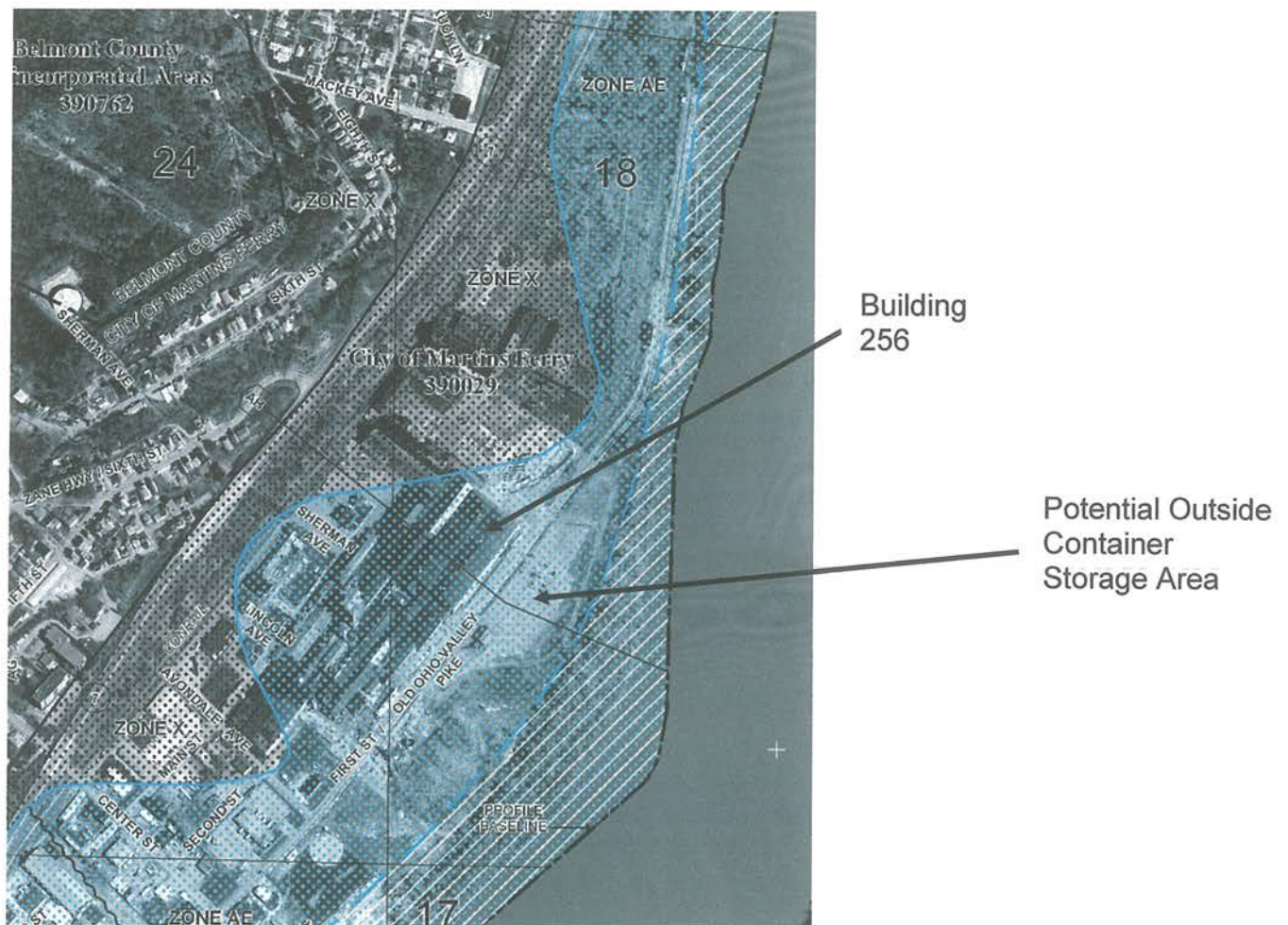
Building 256 – Proposed AMS Processing Facility  
40° 06' 10.03" N  
80° 42' 39.01" W  
El. 656'



Figure 4 facility layout for operations



**Figure 5 - Flood Plain Map for Martins Ferry Facility**



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.



**OTHER FLOOD AREAS**

**ZONE X**

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.

**Attachment 3**  
**Detailed Facility Description**

Facility Description Contents

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Material Types and Volumes .....2

Transport Flow .....3

Facility Layout.....3

Characterization Process.....4

Container Transfer .....4

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Tank Washing/Cleaning/Decontamination.....5

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Emergency Plans.....6

## Basic Operations Summary

Austin Master Services will be performing the following seven tasks at the Martin's Ferry facility:

1. Radiological characterization of waste containers. At this time AMS will process containers that contain waste products from the Oil and Gas industry exclusively.
2. Transfer of containers, delivered to the facility by truck, to rail cars for eventual transport to disposal; facilities outside of Ohio.
3. Stabilization of materials using cement dust and other state approved absorbents to reduce the amount of free liquid in the container.
4. Mixing of materials to reduce the over-all radiological concentrations in the resulting mixture.
5. Packaging of mixed materials and loading of packages for disposal transport at Ohio landfills provided material meets Ohio EPA acceptance criteria for landfill disposal.
6. Pressure washing, tank cleaning and decontamination
7. Containerized waste storage

Attachment 4 to this permit describes the exposure control and monitoring program that will be employed for all the processes to be conducted within the facility.

## Material Types and Volumes

It is expected that the maximum volume of material to be received will be as follows:

Daily - 5,000 tons principally drilling muds and production/flow back water sludge  
Weekly - 20,000 tons  
Annually - 100,000 tons

Storage on site will principally be interim in nature until the material can be processed, re-containerized, characterized and packaged/loaded for shipments. Most of this activity will occur on the day of material acceptance. However, there is the potential to have up to 20,000 tons of material stored on site for as long as a week. Storage, if it occurs, will be done in sealed roll-offs or equivalent containers and will be at inside at the center of Building 256.

## Transport Flow

A maximum of 40 trucks per day may enter the facility for off-loading and loading. It is expected all the trucks will access the facility by traveling on north or south on Route 7, southeast on Center Street and then North on 1<sup>st</sup> Street. The parking area immediately outside of Building 256 is a flat gravel area of approximately 20,000 ft<sup>2</sup>. The configuration and size of the parking lot allows for easy ingress and egress with limited vehicle congestion.

It is expected that rail traffic will be one day per week with 4-5 rail cars per shipment. As shown in the Figures in Attachment 3 to this permit application, the rail-line enters and exits Building 256 from the north adjacent to 1<sup>st</sup> Street. Rail cars will be loaded in the building and it is expected to take between 2 and 4 hours for rail car loading.

## Facility Layout

The processing will occur in a 57,000 ft<sup>2</sup> concrete floor and galvanized steel walled facility (see Attachment 2, Figure 4 for facility layout). The "east" entrance bays are within the Building 256 facility and under cover such that no opening will be subject to impact from external weather conditions. There are three bays located at the "east" side; two will be used for washing out tanks and trucks and the third will have a ramp installed to allow for truck access onto the processing floor located four feet above the building entrance elevation. A "west" side entrance bay will be used for radiological characterization of containers.

In approximate center of the Building 256 two "half round" tanks will be used for mixing and stabilization processes. These tanks are 45' long, 4 feet in depth and made of 3/8" steel. A conveyor and pug mill will be installed in the "west" side of the building. The pug mill will be used processing of drilling muds with eventual beneficial re-use application where the Ohio EPA provides approval.

Two 30 ton cranes are available to lift the containers from the incoming transport vehicles and placed onto the processing floor which consist of solid concrete. It is expected that containers will be of the following configurations:

- Tarped 20 yd<sup>3</sup> roll-offs
- 20 yd<sup>3</sup> sludge boxes
- 45 yd<sup>3</sup> "End Dumps" (note: capacity limited by material weight to about 10-25% of volume)
- 1-10 yd<sup>3</sup> Super Sacks
- 25 yd<sup>3</sup> Intermodal containers

## Characterization Process

AMS's in-situ counting system (ISOCS) will then be utilized to perform a radiological characterization of the box contents. The characterization process/measurement will produce an analytical report detailing the observed concentration of Ra-226/228. The results of the characterization will determine the final disposition of the material. For example under State of Ohio regulations material characterized as greater than 6.99 pCi/g of combined Ra-228 and 226 content would not be eligible for disposal in an Ohio permitted landfill. Because each state has different disposal requirements the resulting concentration values will define the eventual disposal destination for each characterized container.

The AMS Quality Assurance program for this in-situ characterization consists of collecting composited samples from selected containers and analyzing those samples using EPA Method 901.1M. The QA Program is reviewed by the AMS Radiation Safety Officer (RSO) and where data consistently demonstrates correlation between in-situ and lab results the frequency of QA sampling may be reduced.

## Container Transfer

Approximately 10% of the material received annually at the facility will be destined for disposal at facilities served by rail transport. To support this effort materials will be delivered by truck in containers such as super sack which will be off-loaded in the Delivery Bay and moved to a rail gondola car. It is not expected that any containers will be opened, unless QA samples are taken for the characterization program, for this activity.

## Material Stabilization

Waste treatment/stabilization process involves pumping or dumping the waste material into half-round containers. Waste will be mixed with a non-hazardous state approved media (primarily cement dust) and agitated using a track-hoe excavator or pug-mill mixing unit until the physical consistency reduces the water content to a level expected to meet the EPA paint filter test criteria. The waste will then be transferred into tarped containers for shipment to an approved facility.

## Material Mixing

The process is expected to be similar that of the stabilization process described above except that larger volumes of material and longer process times will be used. Once the characterization of the materials to be mixed have been determined, AMS will calculate the amounts of material that will be added to the half round mixing container to achieve the desired final concentration. In some cases the pug mill will be used to blend larger volumes where the stabilization material will automatically be added as part of the mixing process.

Once mixed another characterization will be performed of the container to ensure the activity meets the desired acceptance criteria for the destination disposal facility. The mixed materials will then be transferred to a roll-off or suitable transport package for eventual facility disposal.

## Material Packaging for Transport

Small excavators, front loaders and overhead crane will be used to load materials into containers that are suitable for transport. All containers will be of the strong tight variety and if any material exceeds DOT criteria for transport as a hazardous material only containers meeting DOT requirements will be selected and used for material packaging.

Packages will be loaded, using the overhead cranes, into trucks or rail cars, manifested and shipped to the destination disposal facility. Surveys of outgoing packaging and shipments will meet the requirements described in Attachment 4 to this permit application.

## Tank Washing/Cleaning/Decontamination

Multiple options for cleaning vacuum tanks, truck tankers and almost any kind of tank used in the oil/gas industry will be employed. Tanks are pressure washed in the Wash Bay and the waste is vacuumed into a separate container via a closed loop system.

Water collected will be treated at a state approved brine treatment facility. One such facility, 4K, is currently located on 1<sup>st</sup> Street adjacent to the proposed AMS location. While the majority of the wastewater is expected to be treated, Class II injection well disposal may also be used.

## Waste Storage

It is expected, as described in the section above on [waste volumes](#), that some temporary onsite storage of containerized waste will be necessary. Storage is not desired and will be minimized to the extent possible. Containerized waste will be stored inside the building in the west end of the process floor. In the event there is insufficient room for the stored containers, a lot is located across First Street from the facility that will be used.

Waste containers will be inspected prior to receipt, after moving and periodically to ensure container integrity remains intact. If stored outside, a berm consisting of a rubber liner with bermed side walls will be used and sized such that the volume of the maximum stored container can be contained in the event of container failure. The berm will be inspected at intervals no less than a once a week.

As noted in Figure 5 of Attachment 2, the location of the exterior storage area is outside the 100 year flood zone. Because of this location and the fact the materials will be in sealed containers, no extraordinary flood protection interventions are expected to be needed.

## Emergency Plans

A facility emergency plan will be developed to address the following incidents:

- Worker Injury
- Fire
- Inclement Weather
- Hostile Intruder

While the facility is located within the 100 year flood plain, the fact AMS intends to perform most of its work at a level four feet above the facility elevation will significantly mitigate any potential flood impacts. In addition, except for active mixing processes, materials are in sealed containers also limiting the impact of any flood into the area. However, AMS will use the berm materials described in the waste storage section to limit entrance of waters into the building. Sufficient materials to seal the entrance doors will be marinated on site and available for deployment whenever a FEMA flood alert indicates inundation of the facility is likely. In addition steps will be provided in the emergency plan to direct personnel to limit incoming shipments of material and to expedite off-site transport of materials in the event of a FEMA flood alert.

**Attachment 4**  
**Radiological Safety and Environmental Monitoring Program for**  
**Martin's Ferry Facility**

## **Martins Ferry Radiological Safety and Environmental Monitoring and Control Program**

### **Initial Baseline Surveys**

Initial surveys of the facility prior to material acceptance will be performed.

- Exterior 2x2 NaI Survey with GPS data logging will be performed and investigations of any location exceeding 3X background will be performed.
- Dose rate measurements using a Bicron Microrem or equivalent low level dose rate meter will be used to establish perimeter and interior building dose rates.
- Interior radon measurements will be performed using a real time radon monitor

### **Process Surveys**

#### **Incoming vehicle/containers**

Each incoming vehicle will be surveyed using either a 2x2 NaI detector or microRem dose rate meter. These values will be used to establish action levels based upon the resulting characterization measurements performed for the containers. Once a correlation between the field measurement and the in-situ measurement have been established then action levels will be established as follows:

- Values that indicate the material content is less than 10 pCi/g will allow for no special handling controls
- Values that indicate the material is greater than 100 pCi/g will require initial worker protection controls and surveys until it can be established that the worker controls without measurement are sufficient to protect workers and the environment.
- Values greater than 1000 pCi/g will always require the controls and measurements described in this program.

#### **Work Areas**

For each work area where processes are conducted dose rate and gross gamma count rate measurements will be made for a minimum of one month per process. The AMS Radiation Safety Officer will evaluate the accumulated data to determine if the values remains within a deterministic range and can be predicted by the incoming shipment exposure rate or gross gamma count rate measurements. The RSO will then provide a written report of his/her assessment and determine if further measurements are needed and if they are what the frequency should be.

For each work area where processes are conducted that involve exposure to uncontained materials, surface contamination and airborne survey measurements will be made. These surveys will be collected for at least three months of each process. The AMS Radiation Safety Officer will evaluate the accumulated data to determine if the values remains within a deterministic range and can be predicted by the incoming shipment exposure rate or gross gamma count rate measurements. The RSO will then provide a written report of his/her assessment and determine if further measurements are needed and if they are what the frequency should be.

### Storage Areas

Storage areas will be surveyed and inspected each week. The surveys will principally consist of gross gamma count rate or dose rate measurements. If there is evidence of container leakage or excess mud/debris on or around the containers surface contamination measurements will be made. Inspections will include an assessment as to the integrity of containers and berms, if used. All inspections will be recorded. The AMS RSO, after three calendar quarters will assess the survey and inspection results to determine if changes are needed to the survey/inspection program and elements.

### Exiting Vehicles/Containers

Where characterization surveys indicate the contents of waste materials being shipped from the facility exceed 270 pCi/g of combined Ra-226 and 228 then dose rate and contamination surveys/inspections of the vehicle and/or container will be performed. In those cases where the material contents would require the material to be shipped as a hazardous material, the AMS Radioactive Materials Shipping procedure requirements will be followed. The AMS RSO, after three calendar quarters will assess the survey results to determine if changes are needed to the survey/inspection program and elements.

### Worker Surveys

Initially each worker will be assigned a TLD for monitoring their direct radiation exposure. After three consecutive calendar quarters of monitoring, the AMS Radiation Safety Officer (RSO) will review the results to determine if the measurements demonstrate, along with dose rate measurements, that there is no potential for a worker to exceed 100 mrem in a calendar year. The RSO will provide written documentation of his/her assessment and the use of TLDs can be discontinued. The RSO will continue to evaluate survey data as it is collected and based upon this data may elect to reintroduce monitoring to ensure the 100 mrem in a calendar year is not likely to be exceeded.

Breathing zone airborne measurements will be made initially for all work involving non-containerized material that will be disturbed and can be re-suspended. Processes involving highly "wetted" material will be assessed on a case by case basis to determine

if an airborne survey is warranted. Initial airborne surveys will involve both respirable particulate measurements but also radioactive airborne particle measurements.

Radon measurements will be made at least weekly for three area within the building designated by the AMS RSO. At present it is expected that these will be the potential storage area in the west end of the building, the area around the mixing box rounds and areas where tank washing/decontamination may occur.

The AMS RSO, after three months of data collection, will assess the results to determine if survey type and frequency should be modified or even discontinued. A written report of the RSO's assessment will be produced and maintained as part of the facility records.

## Environmental Surveys

Initially exterior particulate and airborne radioactivity measurements will be made at the downwind and upwind boundary facility locations. It is expected approximately 30 eight hour shift measurements will be made during a calendar quarter. Days selected will be based on operations that involve the use of open containers and potential re-suspension of materials into the air.

The AMS RSO, after three months of data collection, will assess the results to determine if survey type and frequency should be modified or even discontinued. A written report of the RSO's assessment will be produced and maintained as part of the facility records.

## Worker Protection

### Training

All workers will receive radiation safety awareness training, in addition to the AMS Project Safety training, prior to their work at the facility. The training will meet the basic requirements of 10CFR19.

### PPE

Based upon measurements of incoming materials and the processes, the RSO will determine the required PPE. Initially any work where hand contact with materials greater than 100 pCi/g will require a minimum of gloves and protective coveralls such as disposable Tyvek coveralls. Regular work coveralls may be used but surface contamination surveys of those coveralls must be made at the end of the shift before the worker can leave the site.

Respiratory protection will only be assigned if the concentrations are greater than 1000 pCi/g and the process is generating dust levels that exceed 1000 ug/m<sup>3</sup> of respirable dust.

At the end of each calendar quarter the SAMS RSO will evaluate the results fo all surveys to determine if the level of PPE needs modification.

**Attachment 5**  
**Stabilization MSDSs**

# SAFETY DATA SHEET

according to EEC Directives 91/155/EEC and 93/112/EC

Product name: Portland cements and Portland limestone cement: Page: 1/4  
Last revised date: 2001-23-08 Print date: 01-23-08  
SDS-ID: GB/IRL/1.9

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: CEM I 42.5 N  
CEM I 52.5 N  
CEM I 52.5 R  
CEM II / A-LL 52.5 N  
CEM II / A-LL 52.5 R

Application: Binder for natural and artificially processed aggregates, such as sand and gravel, for production of mortar, plaster and concrete.

Container size: 25 and 50 kg sack  
Bulk

Supplier: Aalborg Portland  
Rørdalsvej 44  
DK-9100 Aalborg  
Phone: +45 98 16 77 77

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: cement.

The following substances shall be indicated according to legislation:

<u>Chemical name:</u>	<u>CAS-No.:</u>	<u>%:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
Portland cement clinker	65997-15-1	75-100	XI;R37/38-41	-

## 3. HAZARDS IDENTIFICATION

Man: Dust may irritate throat and respiratory system and cause coughing. Dust or splashes from the mixture may cause permanent eye damage. Dust has an irritating effect on moist skin. Prolonged contact with wet cement/mixture may cause burns. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Environment: The product is not expected to be hazardous to the environment. In the presence of water the product hardens to a solid mass which is not biodegradable.

## 4. FIRST-AID MEASURES

Inhalation: Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and bring along these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact: Do not rub eye. Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring along these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Immediate transport to hospital. Bring along these instructions.

## 5. FIRE-FIGHTING MEASURES

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Specific hazards: Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

## SAFETY DATA SHEET

according to EEC Directives 91/155/EEC and 93/112/EC

Product name: Portland cements and Portland limestone cement: Page: 2/4  
Last revised date: 2001-23-08 Print date: 01-23-08  
SDS-ID: GB/IRL/1.9

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid inhalation of dust. Avoid contact with eyes and prolonged skin contact. Use work methods which minimise dust production. For personal protection, see point 8.

Environmental precautions: The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

Methods for cleaning up: Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. For waste disposal see point 13.

### 7. HANDLING AND STORAGE

Safe handling advice: Observe good industrial hygiene practices. Avoid inhalation of dust. Avoid contact with eyes and prolonged skin contact. Change contaminated clothing. Avoid spread of dust.

Technical measures: Use work methods which minimise dust production.

Technical precautions: Mechanical ventilation may be required. Provide easy access to water supply and eye wash facilities.

Technical measures for safe storage: No special precautions.

Storage conditions: Store in closed original container in a dry place. Seal opened containers and use up as soon as possible. When stored under humid conditions, the chromate neutralization will

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust.

<u>Chemical name:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
Portland cement:				
Total inhalable dust	10 mg/m <sup>3</sup>			EH 40/99
Respirable dust	4mg/m <sup>3</sup>			

Respiratory equipment: During dust-raising work: Use respiratory equipment with particle filter, type P2.

Hand protection: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

Eye protection: Risk of splashes: Wear goggles/face shield.

Skin protection: Wear special protective clothing. Hood or helmet shall be used in connection with splashing work.

Hygiene measures: Remove contaminated clothing and wash the skin thoroughly with soap and water after

## SAFETY DATA SHEET

according to EEC Directives 91/155/EEC and 93/112/EC

Product name:	Portland cements and Portland limestone cement:	Page:	3/ 4
Last revised date:	2001-23-08	Print date:	01-23-08
		SDS-ID:	GB/IRL/1.9

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	grey and white powder
Odour:	odourless
pH:	Approx. 13 (mixed with water)
Boiling point:	not relevant
Flash point:	not relevant
Explosive properties:	not relevant
Relative density:	not available
Solubility:	Miscible with water.

### 10. STABILITY AND REACTIVITY

<u>Stability:</u>	Stable. The content of chromate reducing agent is gradually diminished.
<u>Conditions/ materials to avoid:</u>	The product will harden into a hard mass in contact with water and moisture.
<u>Hazardous decomposition products:</u>	None in particular.

### 11. TOXICOLOGICAL INFORMATION

<u>Inhalation:</u>	Dust may irritate throat and respiratory system and cause coughing.
<u>Skin contact:</u>	Dust has an irritating effect on moist skin. Prolonged contact with the mixture may cause corrosion.
<u>Eye contact:</u>	Dust or splashes from the mixture may cause permanent eye damage. Immediate first aid is necessary.
<u>Ingestion:</u>	Not likely, due to the form of the product. Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
<u>Specific effects:</u>	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

### 12. ECOLOGICAL INFORMATION

<u>Mobility:</u>	The product is not volatile but may be spread by dust-raising handling.
<u>Degradability:</u>	The product is not biodegradable.
<u>Ecotoxicity:</u>	The product is not expected to be hazardous to the environment.

Customer No:	20238
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## SAFETY DATA SHEET

according to EEC Directives 91/155/EEC and 93/112/EC

Product name: Portland cements and Portland limestone cement: Page: 4/ 4  
Last revised date: 2001-23-08 Print date: 01-08-23  
SDS-ID: GB/IRL/1.9

### 13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues according to agreement with local authorities. Waste is classified as special waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Note that fully cured material is not considered as hazardous waste.

Waste from residues: EWC-code: 10 13 06

Contaminated packaging: EWC-code: 15 01 01 (paper and cardboard)

### 14. TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 15. REGULATORY INFORMATION

Labelling:



Irritant

R37/38 Irritating to respiratory system and skin.  
R41 Risk of serious damage to eyes.  
  
S2 Keep out of reach of children.  
S22 Do not breathe dust.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S39 Wear eye/face protection.  
Calcium oxide. When mixed with water it will form calcium hydroxide which has a corrosive effect on skin and eyes.

National regulation:

CHIP: The Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (SI 1994/3247), with Amendment Regulations 1996 (SI 1996/1092), 1997 (SI 1997/1460), 1998 (SI 1998/3106), 1999 (SI 1999/197), 1999 (SI 1999/3165), 2000 (SI 2000/2381) and 2000 (SI 2000/2897).  
Occupational Exposure Limits EH 40/2000 from the Health and Safety Executive.  
The Special Waste Regulations 1996 (SI 1996/972) with Amendment Regulations 1996 (SI 1996/2019) and 1997 (SI 1997/251).

### 16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DANISH TOXICOLOGY CENTRE, Kogle Allé 2, DK-2970 Hørsholm, Denmark. Telephone +45 45 76 20 55 Telefax +45 45 76 24 55

Customer No: 20238  
Filing No: -4926

**Attachment 6**  
**ODNR Comments and response**

RE: Austin Master Services (AMS) – Belmont County

**To: John Bement**  
**Austin Master Services, LLC**  
**355 Circle of Progress**  
**Pottstown, PA 19464**  
**[jbement@autisnmasterservices.com](mailto:jbement@autisnmasterservices.com)**  
**585/704-2744**

**Cc: Kevin Kosko**

After review of the submitted application for an order to operate a facility, I have the following comments:

- Basic Operations Summary section:
  - Item 1 states that there will be processing of both oil and gas waste substances and other substances regulated under another authority at this facility. Co-mingling of oil and gas wastes with other wastes is not allowed under this order to operate a facility. DOGRM does not have authority over the processing and handling of other substances and any attempt to handle both types of waste would require physical separation of the two processes from the public right-of-way.  
AMS revised the application to exclude processing of other than oil and gas generated TENORM from this permit application. We would however like to continue to work with ODNR to develop adequate separation controls that will allow us to perform this type of work in the future.
  - Item 3 states that kiln dust and other absorbents would be used to solidify free liquids. This is an unacceptable stabilization agent for disposal in Ohio landfills, as these types of absorbents will allow discharge of brine on to the land of the landfills under compression and settling. Liquid materials that are not going to a Class II injection well need to be chemically bound, not bulked, with a stabilizing agent such as Portland cement or quick-lime (CaO). See enclosed letter dated May 2014.  
AMS revised the statement to read, "Stabilization of materials using cement dust and other state approved absorbents to reduce the amount of free liquid in the container".
- Material Stabilization section:
  - Figure 1 was referenced, but not included.  
AMS removed the reference to Figure 1.
  - Define the non-hazardous media to be used for stabilizations.
- Tank Washing/Cleaning/Decontaminations section:
  - Water collected from the tank washing is considered an E & P waste and therefore cannot be discharged to a POTW.  
AMS revised the permit application to read, "Water collected will be treated a state approved brine treatment facility. One such facility, 4K, is currently located on 1<sup>st</sup> Street adjacent to the proposed AMS location. While the majority of the wastewater is expected to be treated, Class II injection well disposal may also be used".
- Although the entire site may not be in flood Zone A, DOGRM have concerns with the potential release of contaminants during a flood and/or storm event. Measures to contain any surface spills on the site should be designed and installed. A permanent, impermeable berm of sufficient height and capacity to capture spill and prevent "flushing" contaminants would be the recommended.

AMS has a plan in place to relocate any full waste containers from outside storage to inside storage on the working deck (4' above ground level) in the event of expected flood conditions. We believe (and are verifying with the Martians Ferry Flood Administrator) that the additional 4' in elevation will place us outside the 100 year flood plain.

- If available, drawings should be provided to show sufficient details to determine the construction of the facility. At a minimum DOGRM would want to see typical details for floor drains, collection sumps, concrete slab, storm water controls, and cross-sections. DOGRM received the drawings in John's email, and are reviewing them for details desired. Storm water controls and any off-site discharge details appeared to still be lacking.

The most detailed drawings available have been provided.

- As per ORC Section 1509.074, TENORM materials, (muds, sludges, semi-solids) are required to be tested by the owner prior to leaving the well pad site, unless the owner authorizes the testing to be performed by a person with an order or permit to operate a facility. In the description of the facility operations, it states that AMS will be testing materials for RA226 & RA228, using the ISOCS, method at the time of acceptance. Documentation authorizing AMS to perform the testing on the behalf of the owner should be obtained and maintained.

Verbiage authorizing AMS to perform Radium analysis will be added to our standard contract with our customers.

- The Radiation Protection Plan submitted needs to be reviewed and maintained current with the operation of the facility and the potential concentration and additive levels of radioactive materials overtime. Please identify your radiation safety officer for this facility.

Agreed. AMS will review and update the RPP prior to operations.

- Please clarify whether or not you will be operating under the ODH Radioactive Materials License.

AMS does plan to operate under our Ohio Radioactive Materials License.

A site visit to a nearby facility with an order to operate indicated that there may be an opportunity to develop a collaborative business relationship with AMS, which may impact final disposition of some of the waste substances. If this relationship is a viable option, please indicate this in the detailed description of the proposed facility.

Administrative rules regulating construction and operation of facilities that treat, recycle, store, and/or process oil and gas waste substances are currently being drafted. To better align this facility for compliance with the future rules, the division would highly recommend consideration of the following items that address location, construction and operation of a facility:

- Design elements necessary for construction in or in close proximity to surface waters, drinking water sources, flood plains, environmentally sensitive areas, and residential or public gathering areas.
- Full construction documents developed and sealed by an Ohio registered professional engineer, to include existing and proposed infrastructure, buildings, equipment, utilities, loading areas, containments systems, security and other stationary items to be operated under the facility permit.
- Spill and secondary containment for all vessels.
- Geotechnical investigation as necessary to ensure the site is stable and suitable for the intended operation.

- Environmental site assessment to determine baseline soil & water conditions and potential migration pathways. In the event of closure and reclamation of the facility this information will set desired clean-up levels equal to the pre-operating conditions.
- Storm water hydraulic evaluation and design for the site, including an emergency containment plan in the event of a release of waste constituents from the site.
- Erosion & sediment control plan for the site during and after construction.
- Operation and Maintenance plan, to include safety and emergency measures.
- Closure and Reclamation Plan for the facility in the event the facility ceases operations.

AMS plans to be proactive in our implementation of future rulemaking as we understand it.