~~WHAT IS CLAIMED IS:~~CLAIMS

~~1. A solid inert residue (SIR) dryer, comprising:~~

~~said dryer having one or more heating units and one or more drying substrates, said dryer capable of heating and drying a SIR on said substrate and removing a substantial amount of volatile organic material therefrom;~~

~~said substrate capable of transferring said dried SIR to a collection area; and~~

~~said collection area comprising a compaction system for compacting said dried solid inert residue.~~

~~2. The SIR dryer of claim 1, wherein said substrate comprises a container, a metal tray, a metal sheet, a screen, or a conveyor belt, or any combination thereof.~~

~~3. The SIR dryer of claim 2, wherein said substrate is said conveyor belt.~~

~~4. The SIR dryer of claim 1, wherein said collection area is gas-tight; and wherein said compression system comprises at least one cylinder having a piston, said piston capable of compacting said dried SIR in said cylinder.~~

~~5. The SIR dryer of claim 4, wherein said collection area comprises a multiple compaction system including at least a second cylinder having a piston, said second piston capable of further compacting said compressed SIR.~~

~~6. A process for removing a volatile organic material from a SIR, comprising the steps of:~~

~~adding a SIR to a dryer;~~

~~heating said dryer and removing said volatile organic material from said SIR;~~

~~transferring said dried SIR material to a collection area; and~~

~~collecting said dried SIR.~~

~~7. The process of claim 6, including compacting said collected dried SIR in said collection area.~~

~~8. The process of claim 7, including at least one cylinder having a piston, and compressing said collected dried SIR in said cylinder.~~

~~9. The process of claim 8, including a second cylinder having a piston, and subsequently compacting said compressed SIR in said second cylinder.~~

~~10. The process of claim 9, wherein said dryer further comprises a substrate, said substrate transferring said SIR to a collection area.~~

~~11. The process of claim 6, wherein said SIR comprises one or more polymers, or one or more hydrocarbonateous materials, or any combination thereof.~~

~~12. The process of claim 11, including transferring said SIR from said collection area to a conveyance dispensing apparatus, said conveying dispensing apparatus comprising a first plunger, a second plunger, and a third plunger, wherein each of said plungers, independently, is located in a conveying tube, and wherein each said tube, independently, comprises a conveying valve.~~

~~13. The process of claim 12, wherein each said conveying valve, independently, is capable of forming a vapor seal.~~

~~14. The process of claim 12, wherein each said plunger, independently, comprises a piston, or an auger.~~

~~15. The process of claim 14, including said plunger compacting said SIR and removing a vapor therefrom.~~

~~16. A conveyance apparatus for transferring a SIR, comprising:~~

~~a collection area for said SIR;~~

~~a first conveying plunger for moving said SIR;~~

~~a second conveying plunger for moving said SIR, said second conveying plunger located substantially transverse to said first conveying plunger; and~~

~~a third conveying plunger for transferring said SIR, said third conveying plunger located substantially transverse to said second conveying plunger.~~

~~17. The conveyance apparatus of claim 16, wherein said third conveying plunger is also located substantially parallel to said first conveying plunger.~~

~~18. The conveyance apparatus of claim 17, wherein one or more of said conveying plungers are capable of compressing said SIR.~~

~~19. The conveyance apparatus of claim 16, wherein one or more of said conveying plungers contain an egress valve, said egress valve upon opening thereof allowing said SIR material to be pushed therethrough.~~

~~20. The conveyance apparatus of claim 18, wherein one or more of said conveying plungers contain an egress valve, said egress valve upon opening thereof allowing said SIR material to be pushed therethrough.~~

1. A solid inert residue (SIR) dryer, comprising:

said dryer having one or more heating units and one or more drying substrates, said dryer capable of heating and drying a SIR on said substrate and removing an amount of volatile organic material therefrom;

said substrate capable of transferring said dried SIR to a collection area;

said collection area comprising a compaction system for compacting said dried SIR;

wherein a first valve is present at an entrance to the collection area which is selectively switchable to form a seal that isolates the collection area from the volatile organic material in the dryer; and

wherein said compaction system comprises at least one cylinder having a piston.

2. The SIR dryer of claim 1, wherein said substrate comprises a container, a metal tray, a metal sheet, a screen, or a conveyor belt, or any combination thereof.

3. The SIR dryer of claim 2, wherein said substrate is said conveyor belt.

4. The SIR dryer of claim 1, wherein said piston is capable of compacting said dried SIR in said at least one cylinder.

5. The SIR dryer of claim 4, wherein said collection area comprises a multiple compaction system including at least a second cylinder having a piston, said second piston capable of further compacting said compressed SIR.

6. The SIR dryer of claim 1, wherein a second valve is present downstream from the first valve and the at least one cylinder having the piston which forms a second seal at an outlet of the collection area.

7. The SIR dryer of claim 6, wherein a third valve is present between the first valve at the second valve which forms a third seal downstream from the at least one cylinder having a piston.

8. The SIR dryer of claim 5, wherein a second valve is present downstream from the first valve and the at least one cylinder having the piston which forms a second seal at an outlet of the collection area.

9. The SIR dryer of claim 8, wherein a third valve is present between the first valve at the second valve which forms a third seal downstream from the at least one cylinder

having a piston, and upstream from the second cylinder having the piston.

10. The SIR dryer of claim 5, wherein the first cylinder is a horizontal cylinder and the second cylinder is a vertical cylinder.

11. The SIR dryer of claim 9, wherein the first cylinder is a horizontal cylinder and the second cylinder is a vertical cylinder.

12. A solid inert residue (SIR) dryer, comprising:

said dryer having one or more heating units and one or more drying substrates, said dryer capable of heating and drying a SIR on said substrate and removing an amount of volatile organic material therefrom;

said substrate capable of transferring said dried SIR to a collection area;

said collection area comprising a container having an inert gas therein; and

wherein a first valve is present at an entrance to the collection area which is selectively switchable to form a seal that isolates the container in the collection area from the volatile organic material in the dryer.

13. A process for removing a volatile organic material from the SIR according to claim 1, comprising the steps of:

adding the SIR to the dryer;

heating said dryer and removing said volatile organic material from said SIR;

transferring said dried SIR material to the collection area; and

collecting said dried SIR.

14. The process of claim 13, including compacting said collected dried SIR in said collection area.

15. The process of claim 14, including compressing said collected dried SIR in said at least one cylinder.

16. The process of claim 15, including a second cylinder having a piston, and subsequently compacting said compressed SIR in said second cylinder.

17. The process of claim 16, wherein said dryer further comprises a substrate, said substrate transferring said SIR to the collection area.

18. The process of claim 13, wherein said SIR comprises one or more polymers, or one more hydrocarbonateous materials, or any combination thereof.

19. The process of claim 18, including transferring said SIR from said collection area to a conveyance dispensing apparatus, said conveying dispensing apparatus comprising a first plunger, a second plunger, and a third plunger, wherein each of said plungers, independently, is located in a conveying tube, and wherein each said tube, independently, comprises a conveying valve.

20. The process of claim 19, wherein each said conveying valve, independently, is capable of forming a vapor seal.

21. The process of claim 19, wherein each said plunger, independently, comprises a piston, or an auger.

22. The process of claim 21, including said plunger compacting said SIR and removing a vapor therefrom.